बहुमाध्यमी परियोजना

आत्म-बोध एवं व्यावसायिक चेतना की ओर

विद्यालय में प्राथमिक एवं माध्यमिक स्तर पर
विकासात्मक एवं व्यावसायिक निर्देशन के लिए

निर्मला गुप्ता

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आमुख

शिक्षा मानव के अधिकतम विकास का मुख्य साधन है। शिक्षा के माध्यम से हमारा ध्येय बच्चों में न केवल पढ़ाई-लिखाई संबंधी वरन उन सभी क्षमताओं व कौशलों का विकास करना है जो उन्हें एक उत्पादी कार्यकर्ता, एक उत्तरदायी नागरिक व एक प्रभावकारी व्यक्ति बना सकें। आज के इस जटिल समस्याओं भरे वातावरण में यह और भी आवश्यक हो गया है कि व्यक्ति अपनी विभिन्न आंतरिक, व्यक्तिगत समस्याओं और बाह्य वातावरण की जरूरतों में तालमेल बैठाकर एक संतुलित जीवन बिताने योग्य बन सके। इन लक्ष्यों को पूरा करना तभी संभव है जबकि विद्यालय के पाठ्यक्रम में पढ़ाई-लिखाई के साथ-साथ आंतरिक, सामाजिक व व्यावसायिक विकास संबंधी तत्वों को भी सम्मिलित किया जाए। साथ ही प्रारंभिक विकास के स्तर से ही बच्चों की योग्यताओं व गुणों को पहचानने, विकसित करने तथा उनमें उपयुक्त कार्यप्रवृत्तियों एवं कार्यकौशलों की नींव डाली जाए। ऐसा पाठ्यक्रम ही विद्यार्थियों को स्वयं तथा दूसरों को समझ पाने की क्षमता प्रदान कर सकता है। यह पुस्तक प्राथमिक व माध्यमिक स्तर पर विद्यालयीं पाठ्यचर्या में वैयक्तिक, सामाजिक व व्यावसायिक विकास संबंधी सामग्री की आवश्यकता को पूरा करने की दिशा में एक प्रयत्न है। साथ ही प्राथमिक शिक्षा को रुचिकर, अर्थपूर्ण व वास्तविक रूप देने के लिए दिए गए सुझाव शिक्षा के सार्वजनीकरण में भी सहायक हो सकेंगे।

बच्चों की व्यक्तित्व संबंधी विशेषताओं को समझने व उनके विकास में शिक्षक की विशेष भूमिका होती है। इस पुस्तक में दी गई पाठ्यसामग्री के आधार पर शिक्षक यह जान सकेंगे कि किस प्रकार वे विद्यार्थियों की योग्यताओं व रुचियों के विकास में सहायक हो सकते हैं। साथ ही उन्हें कार्यजगत से अवगत कराकर उनमें व्यावसायिक चेतना ला सकते हैं। वास्तव में शिक्षा का ध्येय भी तभी पूरा होगा जबकि शिक्षक विद्यार्थियों के बौद्धिक विकास के साथ-साथ उनके वैयक्तिक, सामाजिक व व्यावसायिक विकास की भी जिम्मेदारी उठाएँ।

विद्यालयों में विकास और जीवन-वृत्ति से संबंधित मार्गदर्शन पर एक बहुमाध्यमी पैकेज बनाने वाली परियोजना राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद् द्वारा चलाई जा रही है। परिषद् में यह काम शैक्षिक मनोविज्ञान, परामर्श और मार्गदर्शन विभाग द्वारा किया जा रहा है। इसके अंतर्गत सभी उपलब्ध माध्यमों जैसे टी.वी., फिल्म, रेडियो व छपी सामग्री की सहायता से शिक्षकों की प्रशिक्षण संबंधी आवश्यकताओं को पूरा करने का प्रयत्न किया गया है ताकि उन लाखों औपचारिक व अनौपचारिक शिक्षकों, अभिभावकों तथा अन्य महत्वपूर्ण व्यक्तियों तक पहुँचा जा सके जिन पर प्रारंभिक वर्षों में मानव-विकास की जिम्मेदारी होती

है। छपी सामग्री के माध्यम के अंतर्गत बनाई गई यह पुस्तक शैक्षिक मनोविज्ञान, परामर्श और मार्गदर्शन विभाग की प्रवाचक डा. श्रीमती निर्मला गुप्ता के अथक प्रयास का फल है जो कि प्रशंसनीय है। साथ ही मैं इस विभाग के पूर्व अध्यक्ष प्रोफेसर चौधुरी हेमकांत मिश्र तथा परियोजना के अन्य सदस्यों प्रो. कुलदीप कुमार, श्रीमती आशा भटनागर, श्रीमती सुषमा गुलाटी एवं श्रीमती स्वदेश मोहन की भी सराहना करता हूँ जिन्होंने इस पुस्तक पर अपने सुझाव दिए।

मैं आशा करता हूँ कि शिक्षक तथा अभिभावक आदि इस पुस्तक में दी गई जानकारी को अपनी शिक्षण-विधि, पठनसामग्री तथा व्यवहार में अपनाकर विद्यार्थियां में आत्मचेतना तथा व्यावसायिक तत्परता लाने के लिए आवश्यक निर्देशन दे पाएँगे।

अशोक कुमार शर्मा
निदेशक
राष्ट्रीय शैक्षिक अनुसंधान और
प्रशिक्षण परिषद्

भूमिका

हममें से हर एक के मन में प्रायः ऐसे विचार अवश्य उठते हैं कि आखिर लोग कोई न कोई काम-धंधा या व्यवसाय क्यों करते हैं। क्या कोई भी व्यक्ति किसी भी व्यवसाय को अपना सकता है? जीवन में व्यवसाय का क्या महत्व है? कुछ व्यक्ति अपने व्यवसाय से संतुष्ट और कुछ असंतुष्ट क्यों दिखाई देते हैं? सही व्यावसायिक निर्णय लेने के लिए बच्चों को विद्यालय शिक्षा के स्तर से ही कैसे तैयार किया जाय? क्या प्रारंभिक स्तर पर भी इस प्रकार की जागरूकता लानी आवश्यक है? आदि। इस पुस्तक में इन्हीं विषयों से संबंधित कुछ प्रारंभिक जानकारी दी गई है।

व्यक्ति के विकास एवं जीवन-शैली के निर्धारण में व्यवसाय-चयन संबंधी निर्णय महत्वपूर्ण भूमिका निभाते हैं। जीवन के हर मोड़ पर विद्यार्थी सही निर्णय तभी ले सकता है जब वह अपने आप को अच्छी तरह समझे अर्थात उसकी क्षमताएँ क्या हैं और उसकी कमियाँ क्या हैं। उसे कैसा काम रुचिकर लगता है? आदि। इस तरह सही आत्म-विश्लेषण एवं स्वयं मूल्यांकन के आधार पर तथा अपने आसपास के वातावरण व परिस्थितियों को समझकर ही वह अपने लिए सही दिशा चुन सकता है। विशेषकर प्रारंभिक वर्षों में योग्यताओं व रुचियों को पहचानने व विकसित करने के अवसर, इस स्तर पर बनी कार्यप्रवृत्तियाँ, कार्यमूल्य व कार्यकौशल आदि विद्यार्थी को न केवल व्यवसाय संबंधी अपितु जीवन के हर क्षेत्र में निर्णय लेने, समस्याओं का समाधान करने व सामंजस्य बना पाने की क्षमता प्रदान करते हैं।

संपूर्ण व्यक्तित्व के विकास के लिए तथा जीवन में सही निर्णय ले पाने के लिए हमने शिक्षकों का ध्यान विद्यार्थियों में आत्मजागरूकता लाने की ओर आकर्षित किया है। विद्यार्थियों में आत्मविकास एवं व्यावसायिक तत्परता लाने में विद्यालय एवं शिक्षक की क्या भूमिका हो सकती है, इसी संदर्भ में इस पुस्तक में आत्म-अध्ययन तथा व्यावसायिक विकास संबंधी विषयों पर चर्चा की गई है।

इस पुस्तक की विषय-सामग्री को बहुत ही सरल भाषा में प्रस्तुत करने का प्रयास किया गया है ताकि शिक्षकों के साथ-साथ यह माध्यमिक एवं उच्चतर माध्यमिक कक्षाओं के छात्रों के स्वाध्याय में भी उपयोगी सिद्ध हो सके। प्रत्येक लेख में अध्यापकों तथा विद्यार्थियों के "स्व-चिन्तन" के लिए, कहीं-कहीं कुछ पंक्तियाँ "जरा सोचिए" शीर्षक के अंतर्गत दी गई हैं जिससे पाठक लेख में दी गई सामग्री के दैनिक जीवन में उपयोग के बारे में विचार करें तथा लेख के विभिन्न अंशों का "स्वयं" तथा "वातावरण" से संबंध स्थापित कर पायें।

प्रत्येक अध्याय के अंत में अभ्यास के लिए कुछ प्रश्न भी दिए गए हैं जिन्हें शिक्षक बच्चों को कक्षा-कार्य अथवा गृह-कार्य के साथ करने के लिए दे सकते हैं। इस तरह से प्राप्त

हुए प्रश्नों के उत्तरों से कई प्रकार से लाभ उठाया जा सकता है। छोटे समूह में अपने साथियों के साथ इस सूचना का आदान-प्रदान करके बच्चे अपने तथा औरों के बारे में अपनी जानकारी को बढ़ा सकते हैं। सही एवं रोचक उत्तर कक्षा में पढ़कर भी सुनाये जा सकते हैं और इनका प्रयोग कक्षा में विचार-विमर्श तथा अन्य किसी कार्यक्रम या गोष्ठी के आयोजन के लिए भी किया जा सकता है। इससे अध्यापक न केवल बच्चों में अपने आप को तथा आसपास के वातावरण को जानने के लिए उत्सुकता और जागृति उत्पन्न करने में सहायक होंगे वरन् उन्हें इससे अपनी कक्षा के छात्रों को अच्छी तरह जानने तथा उनकी व्यक्तित्व-विशेषताओं को समझने में भी सहायता मिलेगी।

व्यावसायिक जगत से संबंधित जानकारी बच्चों को संबद्ध पाठ्यविषयों को पढ़ाते समय, दैनिक क्रियाकलापों में तथा बातचीत के माध्यम से दी जा सकती है जिससे बच्चों में व्यावसायिक चेतना जगाने का उद्देश्य पूरा हो सकेगा।

कहीं-कहीं भावों एवं विचारों को आकर्षक रूप में प्रस्तुत करने के लिए तथा उनके स्पष्टीकरण के लिए चित्र भी दिए गए हैं। लेख से संबंधित चर्चा करते समय शिक्षक इन चित्रों को बच्चों को दिखा भी सकते हैं। अच्छा हो कि शिक्षक इस पुस्तक की सामग्री व चित्रों के आधार पर विद्यालय में व्यवसाय संबंधी चार्ट व पोस्टर बनवायें।

आशा है, शिक्षकगण इस जानकारी को अपने शिक्षण में अपनाकर इसका लाभ विद्यार्थियों तक पहुँचा सकेंगे।

निर्मला गुप्ता
रीडर

अनुक्रम

गांधी जी का जन्तर

तुम्हें एक जन्तर देता हूं। जब भी तुम्हें सन्देह हो या तुम्हारा अहम् तुम पर हावी होने लगे, तो यह कसौटी आजमाओ:

जो सबसे गरीब और कमजोर आदमी तुमने देखा हो, उसकी शकल याद करो और अपने दिल से पूछो कि जो कदम उठाने का तुम विचार कर रहे हो, वह उस आदमी के लिए कितना उपयोगी होगा.। क्या उससे उसे कुछ लाभ पहुंचेगा ? क्या उससे वह अपने ही जीवन और भाग्य पर कुछ काबू रख सकेगा ? यानि क्या उससे उन करोड़ों लोगों को स्वराज्य मिल सकेगा जिनके पेट भूखे हैं और आत्मा अतृप्त है ?

तब तुम देखोगे कि तुम्हारा सन्देह मिट रहा है और अहम् समाप्त होता जा रहा है।

मो० क० गांधी

कुछ प्रश्न

- व्यक्ति कोई न कोई काम क्यों करते हैं?
- काम द्वारा किन-किन आवश्यकताओं की पूर्ति होती है?
- कौन-कौन से व्यवसाय मूलभूत तथा उच्चस्तरीय आवश्यकताओं की पूर्ति करते हैं?
- व्यवसायों का विस्तृतीकरण कैसे हुआ?

उद्देश्य

इस लेख को पढ़कर आप जान सकेंगे कि

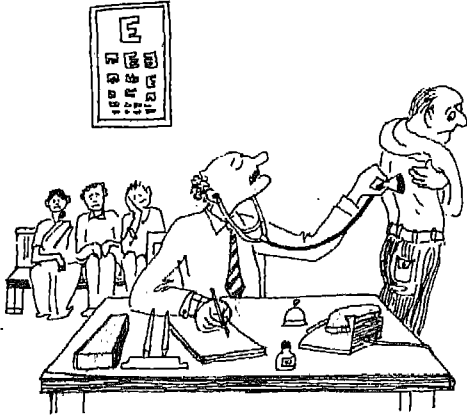
- समय के साथ-साथ व्यवसायों का स्वरूप बदलता गया।
- व्यवसाय हमारी कुछ मूलभूत तथा अन्य आवश्यकताओं की पूर्ति करते हैं।
- आवश्यकताओं के आधार पर व्यवसायों को विभिन्न क्षेत्रों में बाँटा जा सकता है।
- वैज्ञानिक तथा तकनीकी उन्नति के फलस्वरूप नए-नए व्यवसाय आते जा रहे हैं।
- सही व्यवसाय–चुनाव के लिए व्यक्ति को अपनी आवश्यकताओं को समझना चाहिए।

व्यवसाय : एक आवश्यकता

यदि आप से पूछा जाए कि काम करना क्यों आवश्यक है तो आप में से अधिकांश का उत्तर होगा धन कमाने के लिए। हो सकता है कि कुछ लोगों के लिए यही सबसे महत्वपूर्ण कारण हो, परंतु व्यवसाय अपनाने का एक मात्र कारण धन कमाना ही नहीं है।

हम जानते हैं कि कई व्यक्ति अत्यधिक धनी होते हुए भी अपनी योग्यताओं और रुचियों के विकास के लिए अथवा समय के उपयोग के लिए कोई न कोई काम करते हैं। समाजशास्त्रियों और मनोवैज्ञानिकों ने कुछ अन्य कारण भी दिए हैं जैसे कि प्रत्येक व्यक्ति में मानव संबंध स्थापित करने, अपनी व्यक्तिगत पहचान बनाने, सामाजिक प्रतिष्ठा पाने और सुरक्षित अनुभव करने जैसी इच्छाएं भी होती हैं जिनकी संतुष्टि और प्राप्ति के लिए कई व्यक्ति व्यवसाय करने के लिए प्रेरित होते हैं। इससे पहले कि व्यवसाय के मनोवैज्ञानिक पहलू पर हम और चर्चा करें, आइए, व्यवसायों के आज के स्वरूप को अच्छी तरह समझने के लिए एक दृष्टि इसके ऐतिहासिक पक्ष पर भी डालें।

प्राचीन काल में लोग भोजन, वस्त्र, घर आदि के लिए धन इकट्ठा नहीं करते थे। यदि एक व्यक्ति अनाज पैदा करता था, तो दूसरा कपड़ा बुनता था। जिसके पास जो वस्तु अधिक होती थी वह दूसरे को देकर उसके बदले में कुछ और ले लेता था। इसे बार्टर प्रणाली कहा जाता था। परंतु जैसे-जैसे जनसंख्या बढ़ती गई इस प्रणाली के द्वारा प्रत्येक वस्तु के आदान-प्रदान का कार्य कठिन होता गया और कार्यों को समूहों में बाँट दिया गया। एक समूह के व्यक्तियों को एक काम दे दिया गया, इस प्रकार कार्यों के अनुसार जाति और वर्ग बन गए। ब्राह्मणों का कार्य अध्यापन करना अथवा ज्ञान प्रदान करना था, क्षत्रिय देश की सुरक्षा करते थे, वैश्य व्यापार करते थे तथा जो वर्ग मेहनत, मजदूरी तथा सेवा संबंधी कार्य करते थे उन्हें शूद्र कहते थे। इस प्रकार चार प्रमुख प्रकार के व्यवसाय बन गए। परंतु जैसे-जैसे औद्योगिक तथा वैज्ञानिक उन्नति होती गई कई नए-नए व्यवसाय आते गए। उदाहरण के लिए जब रेल का आविष्कार हुआ तो इंजन ड्राइवर, टिकट चेकर, गार्ड, इंजीनियर तथा अनेक अन्य व्यवसायों का जन्म हुआ। इस प्रकार सामाजिक, आर्थिक, औद्योगिक एवं वैज्ञानिक उन्नति के कारण अनेक नए-नए व्यवसायों का आविष्कार होता गया।

मनोवैज्ञानिक दृष्टिकोण के अनुसार विभिन्न व्यवसाय प्रमुखतः व्यक्ति की मूलभूत आवश्यकताओं की पूर्ति करते हैं। समाज में प्रत्येक व्यक्ति एक दूसरे की आवश्यकताओं की पूर्ति करने के लिए काम करता है। व्यवसाय द्वारा वास्तव में व्यक्ति एक दूसरे की सहायता करते हैं, उदाहरण के लिए जो कपड़े हम पहनते हैं, उन्हें बनाने के लिए कितने ही व्यक्तियों ने कार्य किया है। किसान ने रूई पैदा की, ट्रक ड्राइवर रूई को मिल में ले गया, वहाँ पर मैनेजर, मेकैनिकल इंजीनियर, फोरमैन, स्पिनिंग मास्टर तथा स्पिनर ने मिलकर कपड़ा तैयार किया। इसके पश्चात् दर्जी ने उन्हें सिला

कार्य में अकुशलता—दूसरों के लिए परेशानी

आवश्यकताएँ मूलभूत हैं जिनकी पूर्ति जीवित रहने के लिए आवश्यक है जैसे भोजन, जल इत्यादि की आवश्यकता, परंतु कुछ आवश्यकताएँ जैसे घर, वस्त्र, सुख, प्रतिष्ठा, मनोरंजन, कला, धर्म आदि ऐसी हैं जिनके बिना मनुष्य जीवित तो रह सकता है परंतु आराम व सुख के लिए उसे वे आवश्यक प्रतीत होती हैं। कुछ मनोवैज्ञानिकों ने आवश्यकताओं के अनुक्रमीकरण की चर्चा की है जिसके अनुसार मूलभूत आवश्यकताओं की पूर्ति होने पर अन्य आवश्यकताएँ प्रबल हो जाती हैं इसलिए वे उच्चस्तरीय आवश्यकताएँ कहलाती हैं। मनोरंजन,

जरा सोचिए

आपके व्यवसाय द्वारा आपकी तथा दूसरों की किन-किन आवश्यकताओं की पूर्ति होती है?

फिर दुकानदार से इसे ग्राहकों ने खरीदा। इस प्रकार हम देखते हैं कि एक आवश्यकता की पूर्ति के अंतर्गत कितने ही व्यवसाय आ जाते हैं। इनमें से एक भी व्यक्ति यदि ठीक से कार्य न करे तो उससे किसी अन्य को हानि हो सकती है। जैसे यदि एक मोटर मेकैनिक कार ठीक करते समय कार को भली भाँति ठीक न करे तो उससे दुर्घटना होने की संभावना हो सकती है। इसलिए प्रत्येक व्यक्ति को अपने व्यवसाय में कुशलतापूर्वक कार्य करने के लिए स्वयं के बारे में और व्यवसाय के बारे में जानना आवश्यक है जिससे उसे ज्ञात हो जाय कि वह इस व्यवसाय के योग्य है या नहीं तथा वह अपने उत्तरदायित्व को भली प्रकार पूरा कर सकेगा या नहीं।

आपने देखा कि मनुष्य की आवश्यकताओं के आधार पर ही विभिन्न व्यवसायों का विकास हुआ। विभिन्न व्यवसायों के द्वारा ही हमारी आवश्यकताओं की पूर्ति होती है जिनमें कुछ

कला, भ्रमण, शिक्षा, धर्म आदि से संबंधित व्यवसायों में लगे व्यक्ति विशेषकर मानव संबंधों, सूचना,

काम—
मूलभूत आवश्यकताओं की पूर्ति का साधन

सुरक्षा, प्रतिष्ठा, आदि उच्चस्तरीय आवश्यकताओं को पूरा करने में सफल होते हैं।

अब हम कुछ मूलभूत तथा अन्य आवश्यकताओं के आधार पर व्यवसायों की चर्चा करेंगे जो इस प्रकार हैं :–

- भोजन तथा जल की आवश्यकता
- वस्त्र की आवश्यकता
- घर की आवश्यकता
- शिक्षा एवं प्रशिक्षण की आवश्यकता
- स्वास्थ्य की आवश्यंकता
- सुरक्षा की आवश्यकता
- संचार की आवश्यकता
- परिवहन की आवश्यकता
- मनोरंजन की आवश्यकता
- स्वच्छता की आवश्यकता
- धर्म की आवश्यकता
- कला की आवश्यकता

भोजन तथा जल की आवश्यकता

जीवित रहने के लिए इनकी पूर्ति अत्यंत आवश्यक है। लोगों की इन आवश्यकताओं को पूरा करने के लिए बहुत से व्यक्ति अनेक व्यवसायों में लगे हुए हैं। खेती करना, फल-सब्जी, अनाज उगाना, भोजन पकाना, अनाज बेचना इत्यादि भोजन प्राप्ति में सहायक होते हैं। इन कार्यों में लगे हुए लाखों किसान, मज़दूर, फल-सब्जी-विक्रेता, रसोइये, रेस्तराँ और होटलों में काम करने वाले आते हैं। इसी प्रकार पीने का पानी प्राप्त करने के लिए कुआँ खोदना, नल लगाना, झील तथा नदियों के पानी को साफ करके पीने योग्य बनाना, पानी निकालने के लिए पंप बनाना, स्वच्छ पानी को घरों तक पहुँचाने के लिए पाइप बनाना और लगाना आदि कार्यों में अनेक कर्मचारी, नलकार, निरीक्षक तथा इंजीनियरों की आवश्यकता होती है।

घर की आवश्यकता

घरों, इमारतों, भवनों के निर्माण-कार्य में लगे हुए सिविल इंजीनियर, नक्शानवीस, वास्तुविद, ठेकेदार, राजमजदूर, बढ़ई, लोहार इत्यादि हमारी घर की आवश्यकता को पूरा करते हैं। घर बनाने के लिए आवश्यक सामान हैं ईंट, सीमेंट, लकड़ी, लोहा आदि। इन्हें बनाने के लिए छोटे-बड़े कारखाने होते हैं। इनमें अनेक प्रकार के कुशल तथा अकुशल, आफिसर, मजदूर, कर्मचारी, इंजीनियर आदि काम करते हैं।

वस्त्र की आवश्यकता

वस्त्र, रूई, ऊन, रेशम, नाइलान आदि से बनते हैं। रूई खेती से, ऊन भेड़ों से, रेशम कीड़ों से और नाइलान कृत्रिम रेशों से प्राप्त होता है। किसान, भेड़ और रेशमी कीड़े पालने वाले व्यापारी, रूई, ऊन, रेशम आदि खरीद कर बाजार में बेच देते हैं। कुछ लोग हाथ करघा की सहायता से इनसे वस्त्र तैयार करते हैं परंतु आजकल ये काम छोटे-बड़े कारखानों में किये जाते हैं। इनमें कपड़ा बुनने, रँगने, डिज़ाइन बनाने, छापने आदि का कार्य करने वाले असंख्य व्यक्ति, इंजीनियर, डिज़ाइनर, ड्राइंग मास्टर आदि होते हैं। तैयार कपड़ा बेचने वाले, छोटे बड़े व्यापारी, कपड़ा सिलने वाले दर्जी, सिलाई की मशीनें बनाने वाले कारीगर तथा इंजीनियर आदि अपने व्यवसायों द्वारा हमारी वस्त्र की आवश्यकता को पूरा करते हैं।

शिक्षा एवं प्रशिक्षण की आवश्यकता

आज के युग में शिक्षा और प्रशिक्षण भी भोजन तथा जल की भाँति हमारे लिए आवश्यक हो गए हैं। देश के सामाजिक तथा आर्थिक विकास के लिए प्रत्येक नागरिक को शिक्षा देना आज उतना ही आवश्यक है जितना उसे भोजन तथा

वस्त्र प्रदान करना। किसी भी व्यवसाय को भली भाँति करने अथवा उसमें आवश्यक कौशल प्राप्त करने के लिए उचित प्रशिक्षण आवश्यक है। अध्यापक, प्रशिक्षक, परामर्शदाता, प्रशासक आदि के सहयोग से ही शिक्षा और प्रशिक्षण का कार्य किया जाता है। इस क्षेत्र से संबंधित व्यवसाय में देश के लाखों लोग लगे हुए हैं।

स्वास्थ्य की आवश्यकता

प्रत्येक व्यक्ति स्वस्थ रहना चाहता है। जव कभी हम वीमार पड़ते हैं तो वैद्य, हकीम या डाक्टर का सहारा लेते हैं। अधिक बीमार होने पर अस्पताल या नर्सिंग होम में भी भर्ती होना पड़ सकता है जहाँ नर्स रोगी की देखभाल करती है। खून व मूत्र की जाँच करने वाले टेक्नीशियन तथा मरहम पट्टी करने वाले कंपाउंडर आदि की भी आवयकता पड़ती है। दवा बनाने के काम में लगे हुए कर्मचारी, केमिकल इंजीनियर, दवा वेचने वाले कैमिस्ट आदि अनेक व्यक्ति हमारे स्वास्थ्य की रक्षा में सहायक होते हैं।

टैंक, जहाज आदि बनाने तथा चलाने के लिए पुलिस, होमगार्ड तथा सुरक्षा दल के कर्मचारियों की सहायता ली जाती है।

संपर्क एवं संचार

वर्तमान युग में दूर बैठे व्यक्तियों से संपर्क

संबद्ध क्रियाकलाप

यदि आप कभी किसी दवाखाने या हस्पताल में उपचार के लिए गए हैं तो वहाँ उपचार से संबंधित किस-किस व्यक्ति ने आपकी सहायता की? इस क्षेत्र को अपनाने के इच्छुक विद्यार्थी चिकित्सा संबंधी व्यवसायों में लगे किसी परिचित या संबंधी से उनके कार्य के विषय में अधिक जानकारी प्राप्त करें।

सुरक्षा की आवश्यकता

जिस तरह शरीर की सुरक्षा के लिए चिकित्सक, नर्स आदि की आवश्यकता पड़ती है उसी तरह देश की सुरक्षा के लिए जल, थल, तथा वायु सेना का होना आवश्यक है। इनमें सैनिक से लेकर उच्च श्रेणी के अधिकारी तथा वंदूक से लेकर

स्थापित करने के लिए पत्र, तार, टेलीफोन, रेडियो तथा टेलीविज़न आदि संचार के साधनों का प्रयोग आवश्यक हो गया है। इस क्षेत्र में पोस्टमैन, पोस्ट मास्टर की तथा टेलीफोन, रेडियो, टी.वी. आदि को बनाने तथा मरम्मत करने वाले कुशल व्यक्तियों की आवश्यकता पड़ती है।

यातायात की आवश्यकता

हम पत्र, तार, टेलिफोन, रेडियो आदि के द्वारा संदेश तो भेज सकते हैं परंतु एक जगह से दूसरी जगह शीघ्र पहुँचने के लिए साइकिल, बस, रेलगाड़ी, हवाई जहाज आदि का सहारा लेना पड़ता है। इन सवारियों से संबंधित कारखानों में असंख्य व्यक्ति काम करते हैं। अधिकतर वाहनों को चलाने के लिए ड्राइवर, कंडक्टर, पायलट तथा अन्य प्रकार के कर्मचारी जैसे स्टेशन मास्टर, टिकट विक्रेता, टिकटचेकर आदि की आवश्यकता पड़ती है। इन्हें ठीक प्रकार से चलाने योग्य रखने के लिए मैकेनिक तथा इंजीनियर भी होते हैं।

मनोरंजन की आवश्यकता

प्रत्येक व्यक्ति को भोजन और स्वास्थ्य की भाँति मनोरंजन की भी आवश्यकता होती है। दिन भर काम करने के बाद व्यक्ति खेलना, गाना सुनना, टी.वी. या सिनेमा देखना चाहता है। ऐसे व्यक्ति जिनमें गाने, बजाने, नाचने, अभिनय करने संबंधी योग्यता होती है वे इन क्षेत्रों से संबंधित असंख्य व्यवसायों में काम करके हमारी इस आवश्यकता को पूरा करते हैं। इस क्षेत्र के कुछ और जाने पहचाने व्यवसाय है संगीतकार, नाटककार, अभिनेता, वादक, संगीतज्ञ, नर्तक आदि। टी.वी. तथा सिनेमा में निर्देशक, प्रोड्यूसर, फोटोग्राफर, एडीटर, कहानीकार, एनाउंसर तथा और भी अनेक नए व्यवसायों में अवसर उपलब्ध हैं। खेल सामग्री के निर्माण तथा विक्रय में कितने ही कर्मचारी तथा दुकानदार आदि लगे हुए हैं।

स्वच्छता की आवश्यकता

स्वच्छ रहना भी हमारी एक महत्वपूर्ण आवश्यकता है। इसे धोबी, ड्राइक्लीनर्स की दुकानों पर काम करने वाले, अनेक संस्थाओं तथा घरों में काम करने वाले सफाई कर्मचारी, साबुन तेल आदि बनाने वाली कंपनियों में काम करने वाले पूरा करते हैं।

कला की आवश्यकता

अपने आसपास सुंदर वस्तुएँ, चित्र, सजावट के सामान देखकर भला किसे खुशी नहीं होती। चित्रकार, मूर्तिकार, सज्जाकार, कसीदाकार, शिल्पकार, डिजाइनर हमारी कला संबंधी आवश्यकता को पूरा करते हैं।

ऊपर बताई गई कुछ आवश्यकताएँ तथा उनसे संबंधित व्यवसाय केवल उदाहरण मात्र हैं। इनके अतिरिक्त कुछ अन्य आवश्यकताएँ भी हैं जैसे देशाटन की आवश्यकता, धार्मिक तथा आध्यात्मिक आवश्यकताएँ आदि। इनका भी हमारे जीवन में बड़ा महत्व है। इन आवश्यकताओं से संबंधित अनेक प्रकार के व्यवसायों में बहुत से लोगों को काम मिलता है।

मनुष्य में प्रकृति, पृथ्वी एवं अंतरिक्ष के अन अन्वेषित रहस्यों को जानने की इच्छा एवं उत्सुकता सदैव से ही रही है ताकि इनमें छिपे संसाधनों का उपयोग मानव की भलाई के लिए किया जा सके। इस दिशा में हो रहे प्रयत्नों के फलस्वरूप, अंतरिक्ष, समुद्रविज्ञान एवं भूगर्भ-अन्वेपण तथा वातावरण संरक्षण संबंधी अनेक नए व्यवसायों का उदय हुआ है। समय के साथ हमारी आवश्यकताओं में अंतर तथा परिवर्तन भी आता रहता है। इन्हीं के अनुसार व्यवसायों में बदलाव आता है साथ ही नए प्रकार के व्यवसाय जन्म लेते हैं। विज्ञान की प्रगति एवं सभ्यता के विकास के साथ ही नई-नई आवश्यकताओं का अनुभव किया जाने लगा है जिन्हें पूरा करने के लिए नए व्यवसायों की माँग बढ़ती है। देश को आत्मनिर्भर बनाने के प्रयास भी बढ़ रहे हैं तथा व्यवसाय की आवश्यकता को एक मौलिक अधिकार का रूप देने की माँग की जा रही है। स्वरोजगार की योजनाओं के फलस्वरूप भी देश में व्यवसायों के अनेक अवसरों के बढ़ने की संभावना है।

सारांश–अध्याय 1

व्यक्ति के लिए काम करना क्यों आवश्यक है?	धन कमाना ही व्यवसाय का एकमात्र कारण नहीं है। बहुत से व्यक्ति अपनी योग्यताओं व रुचियों के विकास के लिए व समय के सदुपयोग के लिए काम करते हैं।
व्यवसाय करने के मनोवैज्ञानिक कारण क्या हैं?	व्यवसाय द्वारा व्यक्ति अपनी मूलभूत एवं उच्चस्तरीय आवश्यकताओं की पूर्ति करते हैं।
व्यवसाय किस प्रकार व्यक्ति की मूलभूत आवश्यकताओं की पूर्ति करते हैं?	भोजन, जल, वस्त्र, घर की आवश्यकता को पूरा करने के लिए अनेक व्यवसायों में लगे व्यक्ति हमारी मूलभूत आवश्यकताओं की पूर्ति में सहायक होते हैं।
व्यवसाय द्वारा किस प्रकार उच्चस्तरीय आवश्यकताओं की पूर्ति होती है?	शिक्षा, स्वास्थ्य, सुरक्षा, संपर्क एवं संचार, यातायात, मनोरंजन, कला के क्षेत्र में काम करने वाले व्यक्ति उच्चस्तरीय आवश्यकताओं की पूर्ति करते हैं।
कुछ नए व्यावसायिक क्षेत्रों का आविष्कार कैसे हुआ?	वैज्ञानिक एवं तकनीकी उन्नति के फलस्वरूप मनुष्य की आवश्यकताओं में परिवर्तन हुआ जिसके फलस्वरूप अंतरिक्ष, समुद्रविज्ञान, भूगर्भ अन्वेषण तथा वातावरण संरक्षण संबंधी कुछ नए व्यावसायिक क्षेत्रों का उदय हुआ है।

अभ्यास

शिक्षकों के लिए

1. व्यवसाय करने के कुछ प्रमुख कारणों का उल्लेख कीजिए।
2. प्राचीन काल में व्यवसायों का स्वरूप क्या था? इसमें किस प्रकार परिवर्तन हुआ?
3. हमारी एक आवश्यकता की पूर्ति के लिए विभिन्न व्यवसायों में लगे अनेक व्यक्ति कार्य करते हैं। किसी एक व्यवसाय का उदाहरण देकर इस कथन को स्पष्ट कीजिए।

विद्यार्थियों के लिए

1. प्रमुख आवश्यकताओं को लिखकर उनसे संबंधित कुछ व्यवसायों की एक तालिका बनाइए।
2. अपने आसपास रहने वाले लोगों के काम-धंधों की एक सूची बनाइए। बताइए कि उनके काम के द्वारा उनकी किस-किस प्रकार की आवश्यकताओं की पूर्ति होती है।

2

कुछ प्रश्न

- विभिन्न व्यक्तियों के व्यावसायिक चुनाव में अंतर के क्या कारण हैं?
- विकास के विभिन्न स्तरों पर व्यक्ति के व्यावसायिक चयन में बदलाव क्यों आता है?
- व्यावसायिक विकास प्रक्रिया क्या है?
- जीवन के विभिन्न चरणों में घटित होने वाली घटनाएँ व्यावसायिक विकास प्रक्रिया को किस तरह प्रभावित करती हैं?

उद्देश्य

इस लेख को पढ़कर आप जान सकेंगे कि

- व्यावसायिक विकास संपूर्ण व्यक्तित्व विकास का एक महत्वपूर्ण अंग है।
- व्यावसायिक विकास बाल्यावस्था से वृद्धावस्था तक सतत् चलने वाली एक प्रक्रिया है।
- व्यावसायिक जागरूकता, व्यावसायिक विकास प्रक्रिया का प्रथम एवं महत्वपूर्ण चरण है।
- प्रारंभिक विद्यालयी स्तर के अनुभव, बाद में आनेवाले शिक्षा एवं व्यवसाय संबंधी निर्णयों, व्यवसाय में प्रवेश, उन्नति एवं समायोजन पर अपना महत्वपूर्ण प्रभाव डालते हैं।

- प्रारंभिक वर्षों में बच्चों के व्यावसायिक विकास पर ध्यान देना उतना ही आवश्यक है जितना कि शैक्षिक विकास पर।
- बाल्यकाल से किशोरावस्था आने तक व्यक्ति के व्यावसायिक चुनाव में अंतर आ जाने की संभावना होती है।
- स्कूली शिक्षा स्तर पर छात्रों को स्वयं तथा व्यावसायिक जगत के अन्वेषण के अवसर प्रदान किए जाने चाहिए।

शिक्षा एवं व्यावसायिक विकास

पिछले अध्याय में हमने देखा कि व्यवसाय क्यों आवश्यक है और किस प्रकार व्यवसाय द्वारा व्यक्ति की मूलभूत तथा कुछ अन्य आवश्यकताओं की पूर्ति होती है। परंतु हम सब भिन्न-भिन्न व्यवसाय क्यों करना चाहते हैं तथा क्यों बहुत से व्यक्ति अपने व्यवसाय में पूरा समायोजन न कर पाने के फलस्वरूप प्रत्येक परिस्थिति में असंतुष्ट दिखाई देते हैं? आइए, देखें कि व्यावसायिक विकास क्या है और जीवन समायोजन में इसका क्या महत्व है।

वास्तव में व्यक्ति का व्यवसाय ही बहुत सीमा तक उसकी जीवन शैली को निर्धारित करता है। व्यवसाय द्वारा ही व्यक्ति का समाज में स्थान, उसका रहन-सहन का तरीका वनता है। यहाँ तक कि उसका देश या विदेश में रहना, देश के किस भाग में रहना, उसके पास छोटे या बड़े घर का होना, पड़ोसी, मित्र, कार्य के घंटे, अवकाश का समय, परिवार के साथ विताया गया समय, आर्थिक स्थिति आदि सभी व्यवसाय द्वारा ही निर्धारित होते हैं। व्यक्ति का परिवार में तथा अपने आप के साथ समायोजन भी वहुत सीमा तक उसके व्यवसाय पर निर्भर है। इस तरह यह कहना अतिशयोक्ति न होगी कि व्यवसाय जीवन का अत्यंत महत्वपूर्ण अंग है और सामान्य शिक्षा में बच्चों के व्यावसायिक विकास पर ध्यान देना उतना ही आवश्यक है जितना कि शैक्षिक विकास पर।

जरा सोचिए

आपके व्यवसाय ने आपके जीवन के विभिन्न पहलुओं को किस तरह प्रभावित किया है?

व्यावसायिक विकास क्या है?

शिक्षा के विभिन्न स्तरों पर विद्यार्थियों के शैक्षिक एवं व्यावसायिक मार्गदर्शन के लिए यह जानना आवश्यक है कि व्यक्ति व्यवसाय का चुनाव किस प्रकार करते हैं। व्यावसायिक मनोवैज्ञानिकों द्वारा किए गए अध्ययनों से ज्ञात होता है कि जीवन के विभिन्न स्तरों पर जीवन-लक्ष्यों तथा चुने गए व्यवसाय में भिन्नता होती है। शारीरिक, बौद्धिक, सांवेगिक तथा सामाजिक विकास की भाँति व्यावसायिक विकास भी संपूर्ण व्यक्तित्व-विकास का एक महत्वपूर्ण अंग है। व्यावसायिक विकास बाल्यावस्था से वृद्धावस्था तक सतत् चलने वाली एक प्रक्रिया है जो व्यक्ति को प्रगामी विकास की ओर ले जाती है।

मनोवैज्ञानिकों ने अनेक व्यक्तियों की व्यावसायिक जीवनियों के आधार पर व्यावसायिक जीवन को विकास की महत्वपूर्ण अवस्थाओं में बाँटा है। उन्होंने पाया कि जीवन के प्रारंभ में हुए माता-पिता तथा स्कूल के प्रभाव, व्यक्ति की कार्य के प्रति इच्छा, कार्य के प्रति रुचि, मनोवृत्ति तथा कार्य मूल्यों को

प्रभावित करते हैं। यद्यपि अधिकतर विद्यार्थी दसवीं कक्षा के बाद ही शिक्षा व्यवसाय संबंधी महत्वपूर्ण निर्णय लेते हैं परंतु इससे पूर्व के जीवन के अनुभव, माता-पिता का व्यवसाय तथा उनके कार्यमूल्य, विद्यार्थी की विभिन्न विषयों में उपलब्धियाँ, व्यावसायिक आकांक्षाएँ, क्षमताएँ, कार्यकौशल आदि उसके द्वारा बाद में लिए जाने वाले व्यावसायिक चुनाव संबंधी तथा अन्य निर्णयों पर अपना महत्वपूर्ण प्रभाव डालते हैं।

जरा सोचिए

बाल्यावस्था से अब तक के जीवनकाल में उन महत्वपूर्ण घटनाओं के विषय में विचार कीजिए जिन्होंने आपके जीवन के शैक्षिक व व्यावसायिक निर्णयों को प्रभावित किया हो।

व्यावसायिक विकास के विभिन्न स्तर

अमरीकी मनोवैज्ञानिक डोनाल्ड सुपर तथा गिन्जबर्ग द्वारा किए गए अध्ययनों के आधार पर व्यावसायिक जीवन को विकास की विभिन्न अवस्थाओं में बाँटा गया है। प्रत्येक स्तर पर कुछ आयु सीमाएँ दी गई हैं जो केवल अनुमान के तौर पर हैं। इन आयु सीमाओं में विभिन्न संस्कृतियों में थोड़ा बहुत परिवर्तन किया जा सकता है। व्यावसायिक विकास की ये अवस्थाएँ इस प्रकार हैं।

व्यावसायिक विकास के इस सिद्धांत के अनुसार 14 वर्ष से छोटी उम्र के बच्चे अपनी कल्पनाओं के आधार पर खूबसूरत वस्तुओं, बाहरी साज-सजावट, पोशाक आदि के कारण किसी व्यवसाय की ओर आकर्षित होते हैं। उदाहरण के लिए इस उम्र के बच्चे प्रायः पुलिसमैन, नर्स, सेना के ऑफिसर जैसे व्यवसायों की ओर पोशाक, प्रभावशाली व्यक्तित्व के कारण आकर्षित हो जाते हैं।

व्यावसायिक विकास की अवस्थाएँ

अवस्था	आयु
1. वर्धन (Growth)	जन्म से 14 वर्ष तक
(क) काल्पनिक (fantasy)	जन्म से 10 वर्ष तक
(ख) योग्यता संबंधी	11 से 14 वर्ष तक
2. अन्वेषणात्मक (Exploration)	15 से 24 वर्ष तक
(क) अंतरिम (Tentative)	
(ख) परिवर्ती (Transition)	
(ग) प्रयास (Trial-uncommitted)	
3. संस्थापन (Establishment)	25 से 45 वर्ष तक
(क) परीक्षण (Trial-committed)	
(ख) उन्नति (Advancement)	
4. अनुरक्षण (Maintenance)	45 से 60 वर्ष तक
5. अवनति (Decline)	60 वर्ष के बाद

एक छोटे बच्चे के लिए रेलगाड़ी तथा बस को चला पाने तथा आकाश में उड़ते हवाई जहाज को देखकर उसे उड़ाने की कल्पना बहुत सुखद होती है। इसी प्रकार बहुत से बच्चे सर्कस में शेर और हाथी को देखकर उन्हें वश में करके नचाने वाला रिंग मास्टर बनने की कल्पना करने लगते हैं। इस स्तर पर व्यावसायिक चुनावों की कल्पना तथा आनंद पर आधारित होने के कारण इस अवस्था को "काल्पनिक" कहा जाता है।

धीरे-धीरे बच्चों में अपनी क्षमताओं का आभास होने लगता है। अब वे प्रायः वही काम करने की इच्छा व्यक्त करने लगते हैं जो वे अच्छी तरह कर सकते हैं और उनके जिन कार्यों की प्रशंसा की जाती है। घर में माता-पिता तथा आसपास अन्य व्यक्तियों द्वारा किए जाने वाले कार्यों द्वारा उन्हें कार्य जगत की भी थोड़ी बहुत जानकारी होने लगती है। घर तथा बाहर यदि उन्हें विभिन्न कार्यों को करने का अवसर मिलता रहता है तो उन्हें इन कार्यों को करने के लिए आवश्यक कौशल और योग्यता का भी ज्ञान होता है।

व्यवसाय की कल्पना–कितनी सुखद

संबद्ध क्रियाकलाप

विद्यार्थियों से विचार-विमर्श अथवा व्यक्तिगत रूप से बातचीत द्वारा यह जानने का प्रयास कीजिए कि उनके व्यवसाय संबंधी विचार किस सीमा तक काल्पनिक अथवा वास्तविक हैं।

**काम के अवसर—
क्षमताओं के विकास
में सहायक**

इन सब अनुभवों के आधार पर ही सामान्यतः बालक बालिकाओं में आत्मधारणा, कार्यमूल्यों, कार्यप्रवृतियों तथा अन्य कार्यसंबंधी संप्रत्ययों का विकास होता है। इस आयु में माता-पिता, शिक्षकों, मित्रों आदि की कार्य संबंधी धारणाएँ और मूल्य बच्चे के व्यक्तित्व पर अपना महत्वपूर्ण प्रभाव डालते हैं। उदाहरण के लिए जिस परिवार में हर व्यक्ति के अपना काम स्वयं करने पर महत्व दिया जाता है उस परिवार का बच्चा संभवतः बड़ा होकर काम से जी नहीं चुराएगा।

विद्यालय में विभिन्न विषयों के प्राप्तांक भी विद्यार्थियों को बताते हैं कि वे किन विषयों में अच्छे हैं और किनमें कमज़ोर। उदाहरण के लिए जिस विद्यार्थी की आवाज सुरीली नहीं है वह गायक बनने का स्वप्न नहीं देखेगा। इसी प्रकार एक दुबला-पतला बच्चा पहलवान बनकर कुश्ती प्रतियोगिता में भाग लेने की योजना नहीं बनाएगा तथा जो बच्चा गणित में उच्च अंक प्राप्त करता है वह हो सकता है इंजीनियर, वैज्ञानिक अथवा गणितविद बनने की योजना बनाए। इस प्रकार स्कूली स्तर पर बच्चे की स्वयं तथा व्यावसायिक जगत की खोज चलती रहती है। इन वर्षों में हुए अनुभवों के आधार पर ही स्वयं एवं व्यावसायिक जगत के ज्ञान में वृद्धि होती है। इसीलिए विकास की इस अवस्था को "अन्वेषण" (Exploration) कहा जाता है।

हमारी शिक्षा पद्धति में दसवीं कक्षा के बाद ही विद्यार्थियों द्वारा विषयों का चुनाव किया जाता है जिनका उनकी भविष्य की व्यावसायिक योजना तथा अन्य जीवन लक्ष्यों से महत्वपूर्ण संबंध होता है। जो विद्यार्थी अपनी योग्यता, रुचि तथा भविष्य की योजनाओं को ध्यान में रखते हुए सही विषयों का चुनाव कर लेते हैं वे इन विषयों से संबंधित उच्च शिक्षा व प्रशिक्षण प्राप्त कर उचित व्यवसाय में प्रवेश पा लेते हैं। परंतु बहुत से विद्यार्थी कई कारणों से जैसे पर्याप्त अंक न मिलने पर, क्षमताओं और रुचियों संबंधी ज्ञान के अभाव में अथवा पर्याप्त अवसर उपलब्ध न होने के कारण सही विषय का चुनाव नहीं कर पाते जिससे उनमें असंतोष तथा नैराश्य की भावना बनी रहती है।

विद्यार्थियों को यदि स्कूली स्तर पर विशेषकर दस से पंद्रह वर्ष की आयु के बीच स्वयं की तथा व्यावसायिक जगत की जानकारी के लिए अधिक अवसर दिए जाएँ तो वे जीवन के इन महत्वपूर्ण स्तरों पर सही निर्णय ले पाएँगे। इस स्तर पर बालक तथा अन्य व्यक्तियों द्वारा किए गए प्रयास उसकी स्वयं की तथा सही व्यवसाय की खोज में सहायक सिद्ध हो सकते हैं।

पंद्रह से पच्चीस वर्ष की "अन्वेषण" की अवस्था के प्रारंभिक कुछ वर्षों में लिए गए व्यवसाय संबंधी निर्णय प्रायः "अंतरिम" ही होते हैं क्योंकि व्यक्ति एक से दूसरे व्यवसाय में अच्छे से अच्छे अवसरों की खोज में प्रवेश करता रहता है जब तक कि उसे अपनी आशाओं, इच्छाओं और मूल्यों की पूर्ति करने वाला व्यवसाय न मिल जाय। देखा गया है कि व्यवसाय द्वारा व्यक्ति भिन्न-भिन्न इच्छाओं की पूर्ति करते हैं। व्यवसाय द्वारा कोई

सत्ता की, तो कोई कार्य में संतोष प्राप्ति की इच्छा करता है। परंतु ऐसा भी होता है कि कोई सामाजिक, आर्थिक या पारिवारिक परिस्थितियों से बाध्य होकर जल्दी ही किसी व्यवसाय को अपना ले।

हमारे देश में अधिकतर विद्यार्थी दसवीं कक्षा और कभी-कभी उसके बाद तक भी भविष्य की या व्यवसाय संबंधी योजना नहीं बनाते। ये योजनाएँ प्रायः उनके लिए माता-पिता द्वारा ही बनाई जाती हैं जो अधिकतर बच्चे की क्षमता और रुचि पर आधारित नहीं होतीं क्योंकि ऐसे निर्णयों में वे प्रायः अपनी इच्छाओं, आकांक्षाओं और पारिवारिक परिस्थितियों को ही अधिक महत्व देते हैं।

बहुत से विद्यार्थी स्कूली शिक्षा समाप्त कर मित्रों की सलाह से अथवा बिना किसी ध्येय के केवल डिग्री पाने के लिए कालेज या विश्वविद्यालय में प्रवेश ले लेते हैं जिसके फलस्वरूप उन्हें शिक्षा समाप्त करने पर व्यावसायिक प्रशिक्षण के अभाव में रोजगार नहीं मिलता। ऐसी परिस्थितियों में या तो युवक-युवतियाँ किसी भी व्यवसाय के मिलने पर उसे अपना लेते हैं या फिर एक से दूसरे व्यवसाय में भटकते रहते हैं। परंतु फिर भी अधिकतर व्यक्तियों को 25-30 वर्ष की आयु के समीप पारिवारिक तथा आर्थिक परिस्थितियों के कारण किसी न किसी व्यवसाय में स्थापित होना ही पड़ता है।

व्यवसाय में प्रवेश के बाद भी व्यावसायिक विकास की प्रक्रिया चलती रहती है जो कि प्रायः कार्य संबंधी आवश्यकताओं को पूरा करने, संस्थान के नियमों का पालन करने, अन्य कार्यकर्ताओं के साथ अच्छे संबंध बनाने, अधिक उत्पादन तथा ऊँचे पद की प्राप्ति के लिए अधिक शिक्षा और प्रशिक्षण पाने के लिए किए गए प्रयासों में प्रदर्शित होती है। इसीलिए इस सिद्धान्त के अन्तर्गत इस अवस्था को "उन्नति" की अवस्था कहा जाता है।

इसके बाद "अनुरक्षण" की अवस्था आती है। प्रौढ़ावस्था आते-आते अधिकतर व्यक्ति जीवन में कोई नया तथा बड़ा परिवर्तन नहीं लाना चाहते। जिस व्यवसाय में भी वे हैं उसी में अपनी कार्यकुशलता तथा पद को बनाए रखने का प्रयास करते हैं ताकि वे अपने व्यवसाय से अधिक से अधिक लाभ प्राप्त कर पाएं और उन्हें जीवन में कुछ कर पाने का संतोष तथा उपलब्धि का अनुभव हो।

बढ़ती उम्र के साथ-साथ व्यक्ति को शारीरिक तथा मानसिक शक्ति तथा क्षमता कम होने का आभास होने लगता है कारणवश उसे जीवन की सक्रियता को कुछ कम करने के लिए अपने को तैयार करना पड़ता है जो प्रायः कठिन होता है क्योंकि अब तक व्यवसाय व्यक्ति के जीवन का एक महत्वपूर्ण अंग बन जाता है। 55 से 60 वर्ष की आयु के बीच सरकारी तथा गैरसरकारी संस्थानों में काम करने वालों को सक्रिय व्यावसायिक जीवन से अवकाश लेना पड़ता है। बहुत से व्यक्ति इस तथ्य को मानसिक रूप से स्वीकार नहीं कर पाते क्योंकि उनमें एकाएक जीवन के व्यर्थ और अर्थहीन

जरा सोचिए

क्या आपने स्कूली स्तर पर विषयों का चुनाव भविष्य के व्यवसाय को ध्यान में रखते हुए किया था? इस स्तर पर विषयों के चुनाव के क्या आधार होने चाहिए?

हो जाने की भावना आने लगती है। अतः "व्यवसाय में प्रवेश" की भांति "व्यवसाय से अवकाश" भी व्यावसायिक प्रक्रिया की एक महत्वपूर्ण अवस्था है। यह समय व्यवसाय से अवकाश लेकर कुछ अंश-कालीन काम की तैयारी का होता है ताकि व्यक्ति अपना कुछ समय उन रुचिकर कार्यों में लगा सके जिसके लिए अब तक उसके पास समय का अभाव था और जिससे उसकी शारीरिक सक्रियता तथा मानसिक सजगता बनी रहे।

जरा सोचिए

बाल्यावस्था से अब तक आपके व्यावसायिक चुनाव से संबंधित विचारों में क्या-क्या परिवर्तन हुए? इन परिवर्ततनों के क्या-क्या संभव कारण हो सकते हैं?

व्यावसायिक परिपक्वता

व्यावसायिक विकास की इस प्रक्रिया में किसी भी व्यक्ति का एक से दूसरी अवस्था में विना किसी वाधा के तथा सामान्य गति से गुजरना इस बात पर निर्भर करता है कि हर स्तर पर उसका व्यावसायिक व्यवहार उसके परिवार, समुदाय अथवा समाज की अपेक्षाओं के अनुरूप है या नहीं। अर्थात प्रत्येक वच्चे का वर्धन की अवस्था से अन्वेषण, व्यवसाय में प्रवेश, उन्नति, अनुरक्षण तथा अवनति की अवस्था तक निर्बाध गुजरना इस पर निर्भर करता है कि हर स्तर पर, अपनी आयु तथा समूह के अन्य वालक वालिकाओं की तुलना में उसमें कितनी व्यावसायिक तत्परता तथा सजगता थी और किस सीमा तक उसके द्वारा लिए गए निर्णयों से उसे न केवल व्यावसायिक क्षेत्र में परंतु सामाजिक तथा पारिवारिक जीवन में भी सुख और संतोष की प्राप्ति हो सकी।

शिक्षको, हर स्तर पर बालकों की व्यावसायिक तत्परता का अनुमान आप पिछले पृष्ठों में विकास की प्रत्येक अवस्था पर वर्णित व्यवहारों के आधार पर कर सकते हैं। उदाहरण के लिए 14-15 वर्ष की आयु के वालक का व्यावसायिक चयन यदि काल्पनिक स्तर का ही है अर्थात उसकी क्षमताओं और रुचियों से बिल्कुल मेल नहीं खाता तो ऐसे बालक को आप व्यावसायिक रूप से पिछड़ा हुआ मान सकते हैं। ऐसे बालक की व्यावसायिक परिपक्वता को सामान्य स्तर पर लाने के लिए विशेष प्रयत्न करने होंगे। हमारे देश में कई विद्यालयों में शैक्षिक तथा व्यावसायिक निर्देशन हेतु परामर्शदाता हैं जो विद्यार्थियों में व्यावसायिक तत्परता लाने के लिए विशेष कार्यक्रमों का आयोजन करते हैं। जहाँ इस प्रकार का कार्यक्रम उपलब्ध नहीं है वहाँ शिक्षकों को ही विद्यालय की विभिन्न क्रियाओं में व्यवसाय संबंधी तत्वों को सम्मिलित करना होगा जिससे विद्यार्थियों में स्वयं तथा व्यावसायिक जगत की जानकारी वढ़ सके। व्यावसायिक मनोविज्ञान में शोध द्वारा पता चलता है कि निम्न सामाजिक आर्थिक स्तर वाले तथा निम्नबुद्धि विद्यार्थियों की व्यावसायिक तत्परता निम्न स्तर की होती है। शिक्षक ऐसे विद्यार्थियों को परामर्शदाता के पास भेजें जो उनकी व्यावसायिक परिपक्वता को सामान्य स्तर तक लाने के लिए उपयुक्त उपाय कर सकते हैं। प्राथमिक स्तर पर बच्चों की व्यावसायिक परिपक्वता का ज्ञान उनकी व्यावसायिक जागरूकता के आधार पर किया जाना चाहिए अर्थात वच्चों की स्वयं के वारे में धारणाएँ तथा विचार कितने स्पष्ट एवं सकारात्मक हैं। उन्हें अपनी क्षमताओं और रुचियों का कितना ज्ञान है तथा उनमें कार्य

संबंधी किस प्रकार की प्रवृतियों एवं मूल्यों का विकास हुआ है। अर्थात क्या बच्चे में काम को मेहनत तथा लगन से करने में रुचि है? काम किस लिए आवश्यक है इसके विषय में उसकी क्या धारणा है? उसे अपने माता-पिता, सगे संबंधियों तथा आसपास के व्यवसायों की कितनी जानकारी है आदि।

व्यावसायिक विकास में शिक्षक का योगदान

व्यावसायिक विकास प्रक्रिया की दृष्टि से स्कूली शिक्षा स्तर को तीन भागों में बाँटा जा सकता है। प्रारंभिक स्तर को हम व्यावसायिक जागरूकता अथवा व्यावसायिक चेतना की अवस्था, माध्यमिक स्तर को अन्वेषण की अवस्था, तथा उच्चतर माध्यमिक स्तर को व्यावसायिक निर्णय की अवस्था कह सकते हैं। इसी प्रतिमान को हमने नीचे दिए गए रेखाचित्र में प्रस्तुत किया है।

शिक्षा स्तर	1................6	7..................9	11........................12
आयु	5...............11	12..............15	16........................17
व्यावसायिक विकास स्तर	व्यावसायिक जागरूकता	व्यावसायिक अन्वेषण	शैक्षिक एवं व्यावसायिक निर्णय
उद्देश्य	व्यावसायिक निर्णयों के लिए तत्परता		विषय चुनाव/व्यावसायिक प्रशिक्षण/व्यवसाय में प्रवेश

> **जरा सोचिए**
> दो ऐसी क्रियाओं के विषय में विचार कीजिए जिनकी सहायता से आप छात्रों में व्यावसायिक जागरूकता ला सकते हैं?

शिक्षा में व्यावसायिक शिक्षा का प्रतिरूप

विद्यार्थियों के व्यावसायिक विकास की दृष्टि से सामान्य शिक्षा में ही व्यावसायिक शिक्षा (Career Education) के तत्वों को सम्मिलित करना होगा। आत्म अध्ययन अथवा स्वयं की तथा सामाजिक तथा व्यावसायिक जानकारी जिसके महत्वपूर्ण अंश होने चाहिए।

प्रारम्भिक स्तर पर यद्यपि बालकों को व्यावसायिक निर्णय नहीं लेने पड़ते परंतु यह स्तर विद्यार्थियों को बाद में लिए जाने वाले निर्णयों के लिए तैयार करने का है।

व्यक्ति के समायोजन तथा समाज की उन्नति को ध्यान में रखते हुए अपेक्षित कार्य प्रवृतियों तथा कार्यमूल्यों के विकास के लिए शिक्षा में प्रारंभ से ही प्रयत्न किए जाने चाहिए। शिक्षक विषय शिक्षा का प्रयोग आत्मज्ञान तथा बाहरी जगत की जानकारी देने के लिए भी करें जैसे भाषा में कुशलता किस प्रकार व्यक्ति को अपने आप को तथा दूसरों को समझ पाने की क्षमता प्रदान करती है। इस तरह भाषा स्वयं को जानने तथा दूसरों के साथ समायोजन करने का माध्यम है। इसी प्रकार विज्ञान, समाजशास्त्र तथा वातावरण अध्ययन की सहायता से विद्यार्थी की स्वयं संबंधी तथा वातावरण संबंधी जागरूकता को बढ़ाया जा सकता है।

इसी प्रकार विद्यालय में कुछ ऐसी क्रियाओं का प्रावधान हो जिससे बच्चों को सभी प्रकार के कामों को देखने, समझने तथा करने के अवसर मिलें ताकि वे काम के महत्व को समझ पाएँ और जान सकें कि समाज में सुव्यवस्था बनाए रखने के लिए सभी को अपने काम को अच्छी तरह करना कितना आवश्यक है और ये तभी हो सकता है जब कि हर व्यक्ति तथा उसके द्वारा किए जाने वाले काम को उपयोगी और महत्वपूर्ण समझा जाये और समाज में उसे सम्मान मिले।

आजकल हमारे विद्यालयों में "कार्यानुभव" तथा "समाजोपयोगी उत्पादक कार्य" (एस.यू.पी. डब्ल्यू) के अंतर्गत भी इस प्रकार की क्रियाओं का प्रावधान है जिनका उद्देश्य बालकों को विभिन्न प्रकार के कामों का अनुभव प्रदान करना और उनकी क्षमताओं और रुचियों का विकास करना है। इस प्रकार के अनुभवों द्वारा संभवतः हम उनमें काम करने की इच्छा, लगन, परिश्रम, आपसी सहयोग, नेतृत्व करने, काम को योजनाबद्ध, क्रमबद्ध, नियमित तथा सुरुचिपूर्ण ढंग से करने जैसी महत्वपूर्ण कार्यप्रवृतियों तथा कार्यमूल्यों का विकास भी कर पाएँगे।

विद्यालय में "हॉबी-क्लब" तथा अन्य क्रियाओं जैसे फोटोग्राफी, बागवानी, फलसब्जी उगाना, विद्यालय को साफ रखना, विद्यालय के फर्नीचर तथा अन्य समान की देखभाल व मरम्मत करना, बिजली के यंत्रों की मरम्मत करना आदि के द्वारा भी बच्चों को काम करने के अवसर दिए जाएं जिससे उनमें हाथों से काम करने, मेहनत करने तथा उपयुक्त कार्यप्रवृतियों और कौशलों का विकास होगा। रुचि, लगन तथा परिश्रम से काम करने वाले, स्वच्छता से काम करने वाले, दूसरों की मदद करने वाले विद्यार्थियों को भी किसी न किसी रूप में पुरस्कृत किया जाए ताकि वे इन विशेषताओं के महत्व को समझ जाएँ। सही कार्यप्रवृतियाँ तथा कार्यकौशल, व्यक्ति को अपनी क्षमता, रुचि तथा सामाजिक-आर्थिक परिस्थितियों के अनुकूल व्यवसाय में प्रवेश करने, उन्नति करने तथा समायोजन कर पाने में सहायक होंगे। इस प्रकार प्रारंभ में अर्जित व्यक्तित्व विशेषताएं एवं कार्यकौशल व्यक्ति की बाद की व्यावसायिक विकास प्रक्रिया को सहज बनाने में सहायक होते हैं।

सारांश–अध्याय 2

व्यावसायिक विकास क्या है?	सामान्य विकास प्रक्रिया की भाँति व्यावसायिक विकास सतत् चलने वाली प्रक्रिया है जो शिक्षा, प्रशिक्षण, व्यावसायिक निर्णय, व्यवसाय में प्रवेश, उन्नति, अनुरक्षण तथा व्यवसाय से अवकाश के संबंध में होने वाले विकास से संबंधित है।
व्यवसाय को जीवन का एक महत्वपूर्ण अंग क्यों माना जाता है?	व्यवसाय ही व्यक्ति की जीवन शैली को निर्धारित करता है। व्यक्ति का समाज में स्थान, उसकी दिनचर्या, दूसरों के साथ संबंध आदि व्यवसाय द्वारा ही निर्धारित होते हैं।
सामान्य शिक्षा में व्यावसायिक तत्वों को लाना क्यों आवश्यक है?	व्यावसायिक तत्वों पर आधारित विद्यालय की क्रियाएँ व अन्य अनुभव बच्चों में उपयुक्त कार्यप्रवृतियों, कार्यकौशल, कार्य की इच्छा व लगन जागृत करने में सहायक होते हैं।

अभ्यास

शिक्षकों के लिए

1. किन्हीं दो व्यवसायों का उदाहरण देते हुए उनमें काम करने वाले व्यक्तियों की जीवन शैली में भिन्नता को स्पष्ट करिए।
2. विद्यालयी शिक्षा स्तर तक व्यावसायिक विकास की अवस्थाओं का वर्णन करिए। इस स्तर पर हुए अनुभव विकास की आने वाली अवस्थाओं में व्यक्ति के सामंजस्य को किस तरह प्रभावित करते हैं?
3. प्राथमिक शिक्षा के स्तर पर बालकों की व्यावसायिक परिपक्वता के क्या-क्या मापदण्ड होंगे?

विद्यार्थियों के लिए

1. अपने माता-पिता, परिवार तथा आसपास रहने वाले व्यक्तियों के व्यवसाय की सूची बनाओ साथ ही उनसे उनके व्यवसाय में किए जाने वाले काम के बारे में जानकारी प्राप्त करो।
2. तुम्हारे पिताजी तथा तुम्हारे परिवार की दिनचर्या किस प्रकार तुम्हारे पिता के व्यवसाय द्वारा निर्धारित है? तुम्हारे आसपास किसी अन्य व्यवसाय में काम करने वाले व्यक्ति से उनकी दिनचर्या किस प्रकार भिन्न है?

आत्म-विकास के लिए

आत्म-बोध व्यावसायिक विकास का एक महत्वपूर्ण पहलू है। व्यावसायिक तथा जीवन संबंधी अन्य विषयों में सही निर्णय ले पाना बहुत-कुछ इस बात पर निर्भर है कि व्यक्ति को स्वयं का अर्थात अपने विचारों, धारणाओं, मूल्यों तथा क्षमताओं का कितना ज्ञान है। आगे कुछ अध्यायों में हम आत्म-ज्ञान संबंधी चर्चा करेंगे।

3

कुछ प्रश्न

- "आत्म" अथवा "स्व" क्या है तथा इसका विकास किस प्रकार होता है?
- बच्चे, माता-पिता, शिक्षक तथा अन्य महत्वपूर्ण व्यक्तियों के बीच का आपसी व्यवहार तथा अन्य घटनाएँ व्यक्ति की आत्मधारणा को किस प्रकार प्रभावित करते हैं?
- सकारात्मक तथा वास्तविक आत्मधारणा के विकास एवं वृद्धि के लिए विद्यालय में किस प्रकार के अनुभवों तथा क्रियाओं का आयोजन किया जाना चाहिए?

उद्देश्य

इस लेख को पढ़कर आप जान सकेंगे कि–

- स्कूल तथा घर में हुए अनुभव आत्मधारणा के विकास को किस प्रकार प्रभावित करते हैं।
- आत्मधारणा तथा स्कूली उपलब्धि में क्या संबंध है।
- सकारात्मक आत्मधारणा बालक की सीखने की क्षमता को बढ़ा देती है।
- शिक्षा में "आत्म ज्ञान" भी एक विषय के रूप में होना चाहिए।
- बालकों की व्यक्तित्व-विशेषताओं के अधिकतम विकास के लिए आवश्यक है कि उनमें सकारात्मक आत्मधारणा के विकास के लिए प्रयत्न किए जाएँ।

स्वयं को कैसे जानें

स्वयं निर्णन लेने तथा समस्याओं के समाधान की क्षमता "स्वयं के ज्ञान" पर आधारित होती है। व्यक्ति का स्वयं अथवा "आत्म" उसके विचारों, धारणाओं, मूल्यों और क्षमताओं का मिश्रण है। व्यक्ति के व्यवहार तथा क्रियाओं में भी उसके इसी "स्वयं" की झलक होती है। यहाँ तक कि वातावरण में हम जो भी देखते हैं, जैसा सुनते हैं उन सबका अर्थ भी व्यक्ति के लिए "स्वयं" के अनुसार ही होता है। हम अपने विषय में जैसा सोचते हैं, जैसे विचार रखते हैं, वही हमारी "आत्मधारणा" कहलाती है। संतुलित व्यक्तित्व के विकास में "आत्मधारणा" का बहुत महत्व है। व्यक्ति की आत्मधारणा जितनी स्पष्ट, वास्तविक एवं सकारात्मक होगी उसका व्यक्तित्व भी उतना ही संतुलित होगा।

"स्व" का अर्थ

"स्व" अथवा "आत्म" के विकास में माता-पिता, परिवार के अन्य सदस्य तथा अध्यापक महत्वपूर्ण भूमिका निभाते हैं। संक्षेप में हम यहाँ चर्चा करेंगे कि "स्व" अथवा "आत्म" क्या है और "आत्मधारणा" का विकास कैसे होता है।

"स्व" का निर्माण व्यक्ति के जीवन में घटी घटनाओं के फलस्वरूप होता है विशेषकर जीवन के प्रारंभिक वर्षों में माता-पिता तथा परिवार के अन्य सदस्यों के संपर्क में घटी हुई घटनाएँ आत्मविकास पर अत्यधिक प्रभाव डालती हैं। इसीलिए "स्व" का जो रूप प्रारंभ में संगठित हो जाता है बाद के जीवन में व्यक्ति उसी के अनुरूप व्यवहार और क्रियाओं को करता है। "स्व" के इसी व्यवस्थित रूप को "आत्मसंबोध", "आत्म-धारणा" आदि की संज्ञा दी जाती है।

बच्चे के व्यवहार और उसकी स्कूली उपलब्धियों को समझने के लिए अध्यापक के लिए यह जानना आवश्यक है कि बच्चे ने किस प्रकार की "आत्मधारणा" के साथ स्कूल में प्रवेश किया है। यदि उसकी अपने विषय में धारणा निम्न या तुच्छ स्तर की है तो वह शायद अपनी योग्यता के अनुरूप उपलब्धि न कर पाए तथा स्कूल के दूसरे कार्यक्रमों तथा दूसरे बच्चों के साथ पारस्परिक व्यवहार में स्वेच्छा से आगे न आये। ऐसे बच्चे की आत्मधारणा में परिवर्तन लाने के लिए अध्यापक तथा माता-पिता को विशेष प्रयत्न करने होंगे जिसकी चर्चा हम बाद में करेंगे।

आत्मधारणा का विकास

नवजात शिशु के पास शारीरिक "स्व" के अतिरिक्त कुछ नहीं होता। उसे चाहिए क्षुधा की पूर्ति और निद्रा की प्राप्ति। उसका "स्व" शारीरिक आवश्यकताओं का संगठन है। धीरे-धीरे उसे अपने व माता-पिता के बीच शारीरिक भिन्नता का ज्ञान होता है फिर वह अपने और दूसरों के विषय में धारणाएँ और विचार बनाता है। यदि माता-पिता उसकी आवश्यकताओं को समझते हैं, समय पर उनकी संतुष्टि करते हैं तो उसे पर्याप्तता का अनुभव होता है। कोई गलत काम करने पर यदि

उसे धैर्य और स्नेह के साथ रोका जाता है और अच्छा काम करने पर उसकी प्रशंसा की जाती है तो उसकी आत्मधारणा स्पष्ट एवं सकारात्मक बनती है। इसके अतिरिक्त घर में विभिन्न कार्यों को करने की उसे जितनी अधिक सुविधाएँ मिलती है उतना ही उसे किसी काम को कर पाने और न कर पाने (योग्यता), उसमें आनंद मिलने और न मिलने (रुचि) का ज्ञान होता है। किसी काम का समर्थन और किसी का असमर्थन होने पर उसे अच्छे-बुरे, सही और गलत (मूल्यों) का बोध होता है। इस तरह स्वयं की धारणाएँ, मूल्य आदि बनते जाते हैं और "मानसिक स्व" का प्रादुर्भाव होता है।

परिवार के बाहर अगल-बगल बच्चा अपनी उम्र के अन्य बच्चों, मित्रों के साथ सम्मिलित होता है। मित्रों के प्रति और मित्रों की उसके प्रति धारणाएँ बनती हैं जो उनके आपसी व्यवहार और प्रक्रियाओं द्वारा दृढ़ होती जाती हैं। इसके बाद कुछ और बड़ा समाज उसे तब मिलता है जब वह स्कूल में पढ़ने जाता है। स्कूल के साथियों, शिक्षकों के संपर्क में आकर उनके प्रति भी उसके विचार बनते हैं। शिक्षकों का व्यवहार तथा मूल्यांकन भी यदि उसकी अब तक की बनाई गई आत्मधारणा के अनुकूल होता है तो उसकी इस आत्मधारणा की पुष्टि और वृद्धि हो जाती है परंतु प्रतिकूल होने पर उसकी आत्मधारणा अस्तव्यस्त और अव्यवस्थित हो जाती है। जीवन की अन्य परिस्थितियों में भी यदि बच्चे को अपनी इच्छा शक्ति, विचारों, भावनाओं को अभिव्यक्त करने के अवसर नहीं मिलते तो उसमें "स्व" का कोई स्पष्ट रूप सामने नहीं आ पाता। किंतु साधारणतया घर, स्कूल तथा अन्य सामाजिक नियमों के पालन तथा आवश्यकताओं के संतुलन के फलस्वरूप, "स्व" का कोई न कोई स्वरूप संगठित हो ही जाता है। कुछ और बड़े होने पर समाज, देश और विश्व के प्रति भी उसकी धारणाएँ और विचार बनते हैं। इस प्रकार व्यक्ति अपने "स्व" का विकास एवं विस्तार करता जाता है।

जिन व्यक्तियों की अपने विषय में धारणाएँ सुनिश्चित, स्पष्ट तथा सकारात्मक होती हैं उनका व्यक्तित्व संतुलित होता है तथा उनके व्यवहार में परिवर्तन की संभावना भी अधिक होती है। इसलिए वे किसी भी प्रकार की परिस्थितियों में समायोजन कर पाने में सफल होते हैं।

सकारात्मक तथा वास्तविक "स्व" का ज्ञान इस बात पर निर्भर है कि माता-पिता, अध्यापक तथा अन्य महत्वपूर्ण व्यक्ति बच्चे की विशेषताओं का किस सीमा तक सही मूल्यांकन करते हैं।

आत्मधारणा तथा स्कूली सफलता

छात्र की स्कूल में सफलता बहुत कुछ उसकी आत्मधारणा पर निर्भर होती है। शैक्षिक शोध द्वारा ज्ञात होता है कि शैक्षिक उपलब्धि आत्मधारणा से संबंधित है। देखा गया है कि नकारात्मक तथा निम्न आत्मधारणा रखने वाले छात्रों की शैक्षिक तथा अन्य क्रियाओं में उपलब्धि भी निम्न स्तर

जरा सोचिए

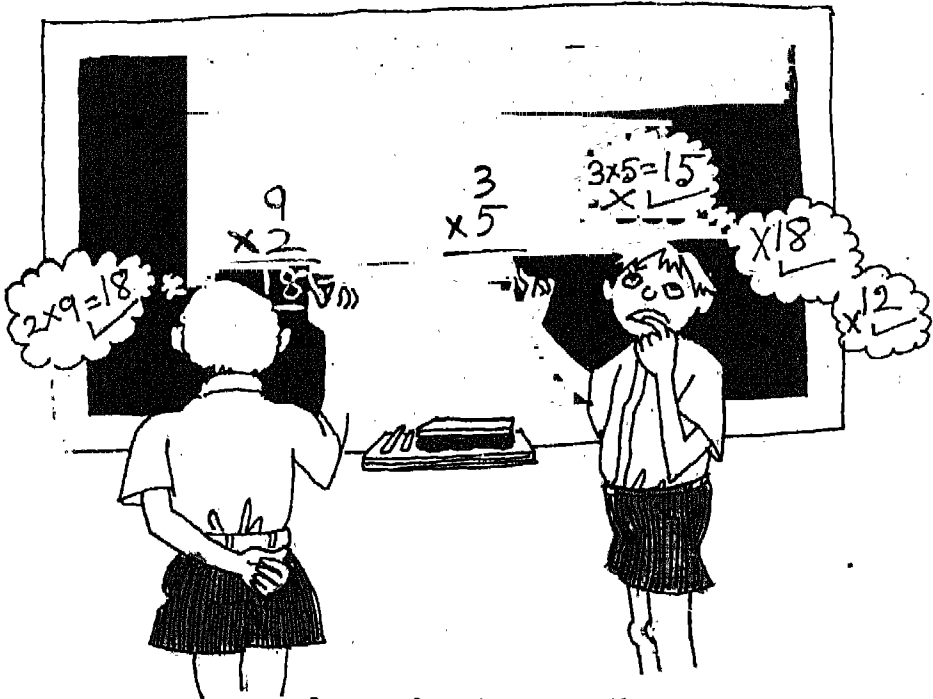
बाल्यकाल में माता-पिता अथवा परिवार के किसी भी सदस्य के साथ हुई ऐसी घटनाओं के विषय में सोचिए जिनके कारण आपकी अपने बारे में धारणाओं पर प्रभाव पड़ा हो।

की होती है। ऐसे छात्रों में आत्मविश्वास तथा

निम्न आत्मधारणा
नैराश्य और हीन भावना
को जन्म देती है

आत्मसम्मान की कमी होती है। ऐसे बच्चे कक्षा में तथा बाहर किसी कार्य में भाग लेने के लिए स्वेच्छा से आगे नहीं आते। निम्न तथा नकारात्मक धारणााओं के कारण उनमें स्वाभाविक जिज्ञासा तथा सृजनात्मक योग्यता का भी अवरोध हो जाता है। उन्हें अपनी सफलता पर संदेह रहता है। हीनता की भावना होने के कारण वे किसी भी ऐसी स्थिति का सामना करने से घबराते हैं जहाँ लज्जा अथवा असफलता मिलने की आशंका हो।

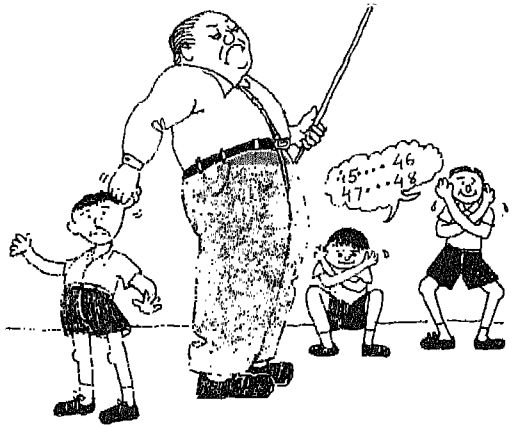
सीखने का वातावरण तथा आत्मबिंब में वृद्धि

आत्मधारणा ही व्यक्ति के आत्मबिंब को बनाती है। सकारात्मक आत्मबिंब सीखने की योग्यता को बढ़ाता है। वातावरण के प्रभाव के फलस्वरूप बनी आत्मधारणा स्कूली अनुभवों से या तो सबल

आत्मविश्वास की कमी सरल कार्यों
को भी कठिन बना देती है

हो जाती है अथवा निर्बल हो सकती है। अधिकतर निम्न सामाजिक-आर्थिक पारिवारिक स्तर से आए हुए छात्रों का आत्मबिंब नकारात्मक होता है। विद्यालय में यदि उनकी क्षमताओं के अनुकूल पठन-विधियों तथा क्रियाओं का प्रावधान हो तो उनके नकारात्मक आत्मबिंब को सुधारा जा सकता है।

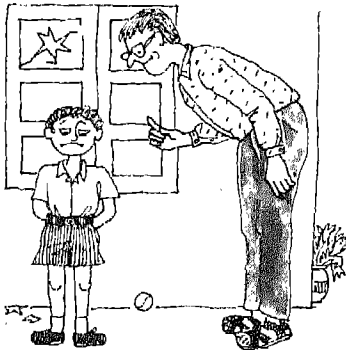
इसमें संदेह नहीं कि बच्चों के मानसिक स्वास्थ्य के लिए माता-पिता तथा अध्यापकों को बच्चों में सकारात्मक आत्मबिंब के विकास के लिए प्रयत्न करने चाहिए। ऐसा तभी हो सकता है जब कि बच्चों को उनकी क्षमताओं, योग्यताओं के अनुरूप क्रियाओं में भाग लेने के अवसर प्रदान किए जाएँ साथ ही वे उनकी क्षमताओं के अनुरूप ही उनसे अपेक्षाएँ रखें और उचित लक्ष्य-निर्धारण में सहायता करें तभी वे उनकी व्यक्तिगत पहचान बनाने, सम्मान, मान्यता तथा समर्थन-प्राप्ति जैसी मनोवैज्ञानिक आवश्यकताओं की पूर्ति में सहायक होंगे। सामर्थ्य, मान तथा क्षमता का अनुभव होने पर ही बच्चों में सकारात्मक आत्मबिंब का विकास हो सकता है।

आत्मबिंब की वृद्धि के लिए अध्यापक नीचे लिखे सिद्धान्तों को अपना सकते हैं।

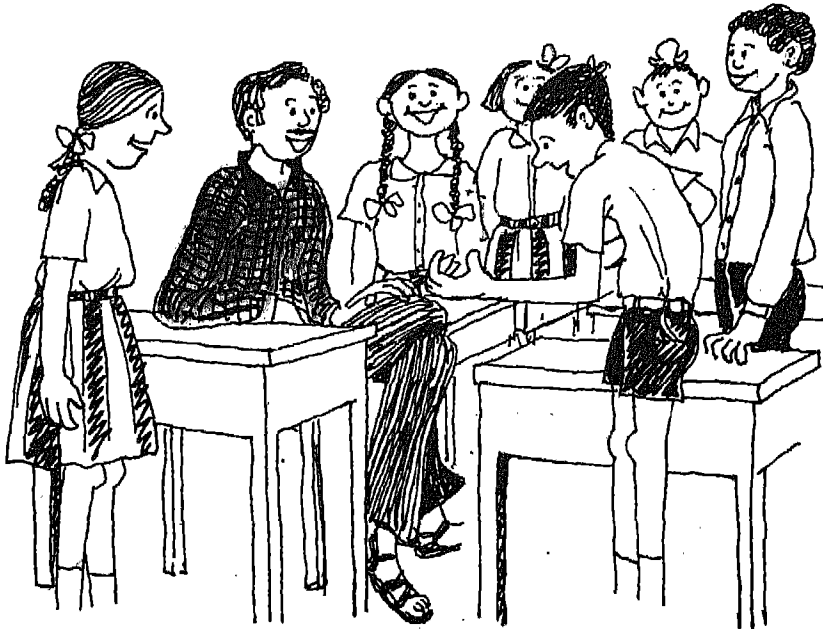
- व्यक्तिपरक (Individualized) शिक्षण-विधि का प्रयोग।
- बच्चे की भावनाओं, आकांक्षाओं, मनोवृत्तियों तथा विचारों पर अधिक महत्व।
- प्रत्येक बच्चे की सामर्थ्य में विश्वास।
- डराने, धमकाने, मारपीट अथवा सज़ा देने का कम-से-कम प्रयोग तथा अपराध के कारणों को समझने का प्रयास।
- बच्चों को असफलता की अनुभूति देने के स्थान पर उनके द्वारा सीखे गए कौशल का मूल्यांकन।

इन सिद्धांतों को अपनाने के फलस्वरूप आशा की जाती है कि अध्यापक स्कूल में एक ऐसा वातावरण बना सकेंगे जो भयरहित और चिन्तारहित होगा, परंतु उचित मनोविकास के लिए यह भी आवश्यक है कि प्रत्येक विद्यार्थी को सम्मान की दृष्टि से देखा जाय, प्रत्येक विद्यार्थी की सामर्थ्य और क्षमता में विश्वास किया जाय चाहे कोई

जरा सोचिए

अपने विद्यालयी जीवन को याद करके सोचिए कि विद्यालय के वातावरण का तथा अध्यापकों के व्यवहार का आपके व्यक्तित्व पर सकारात्मक अथवा नकारात्मक किस प्रकार का प्रभाव हुआ।

दंड के स्थान पर अपराध के कारणों को समझें

मानसिक रूप से पिछड़ा अथवा शारीरिक रूप से अपंग ही क्यों न हो। उसकी वैयक्तिकता को बोझ न समझकर समाज की परिसंपत्ति माना जाय।

भयरहित तथा चिन्तारहित वातावरण ही बच्चों को एक स्वस्थ मानसिक वातावरण प्रदान कर सकता है जहाँ वे खुलकर विचारों को व्यक्त कर पाएँ और दूसरों के साथ सहज और स्वाभाविक रूप से व्यवहार कर सकें। ऐसे खुले वातावरण में ही बच्चे निःसंकोच होकर स्कूल की विभिन्न क्रियाओं में भाग लेने के लिए आगे बढ़ेंगे जिससे उन्हें अपनी विशेष योग्यताओं को पहचानने व विकसित कर पाने में भी सहायता मिलेगी। ऐसा ही वातावरण बच्चों में सकारात्मक आत्मधारणा की नींव डाल सकता है। यदि विद्यालय में अध्यापक, प्रशासक तथा अन्य व्यक्ति बच्चों की भावनाओं और प्रवृत्तियों को विशेष मान्यता दें तो वे अवश्य ही उसकी सकारात्मक आत्मधारणा के विकास एवं वृद्धि में सहायक होंगे। यह भी आवश्यक है कि शिक्षक केवल विषय संबंधी शिक्षा न देकर एक सहायक तथा मार्गदर्शक बने।

स्कूल के कार्यों की प्रतिपुष्टि (Feedback) इस प्रकार हो कि सही कार्य के लिए प्रशंसा और गलतियों तथा कमियों को दूर करने के लिए प्रोत्साहन दिया जाए। शिक्षक बच्चों को उनकी क्षमताओं के अनुरूप ही ध्येय-निर्धारण करने में सहायक हों क्योंकि यदि बच्चे का लक्ष्य उसकी

शिक्षक को श्रोता भी बनना चाहिए

सामर्थ्य से बहुत परे है तो उसे प्रायः असफलता का ही अनुभव होगा जो उसके आत्मविश्वास को कम करेगा। दूसरी ओर लक्ष्य यदि बहुत निम्नस्तर के हैं तो काम नीरस और अरुचिकर लगेगा। बच्चों को सफलता तथा उपलब्धि का अनुभव तभी हो सकता है जबकि विद्यालय के विभिन्न कार्य चुनौतीपूर्ण हो। इस तरह शिक्षक शिक्षण के साथ-साथ "मानव सुकरक" (Human Fecilitator) भी बन सकेंगे।

हमें शिक्षण पद्धति में कुछ इस प्रकार के सिद्धांतों को लाना होगा जिससे बच्चों में छिपे हुए गुणों को उभरने के अवसर मिलें। इसके लिए हमने व्यक्तिपरक शिक्षण-विधि का उल्लेख किया है जिसके जाने की संभावना हो।

इस प्रकार का शिक्षण ही, शिक्षक के लिए चुनौतीपूर्ण बन सकेगा। शिक्षक यदि इन सिद्धांतों को अपने शिक्षण का आधार बनाएँ तो संभव है वे बच्चों में सृजनात्मकता तथा सकारात्मक आत्मधारणा का विकास कर पाने में सफल हों।

आत्म-एक विषय

विद्यालय में "आत्म" एक अध्ययन का विषय होना चाहिए। विद्यालय में यदि निर्देशन तथा परामर्श का कार्यक्रम चलाया जा रहा हो तो "आत्म अध्ययन" उसका एक महत्वपूर्ण अंश होगा। परामर्श-

> **जरा सोचिए**
>
> यदि आपके लिए फिर से स्कूल जाना संभव हो तो आप वहाँ किस प्रकार का वातावरण पसद करेंगे? अपने किसी ऐसे शिक्षक या अध्यापक के बारे में सोचिए जिन्होंने आपकी सीखने की अभिप्रेरणा को प्रभावित किया हो।

अनुसार शिक्षक को प्रत्येक विद्यार्थी-समूह की आवश्यकताओं को ध्यान में रखना होगा। यह भी आवश्यक है कि शिक्षक शिक्षण-विधि को एक सृजनात्मक रूप दें जिसकी कुछ विशेषताएँ इस प्रकार हैं :

- शिक्षक को अपनी प्रभुता का आभास कम तथा बच्चों द्वारा अपने प्रश्नों के संतोषजनक उत्तर ढूँढ पाने की क्षमता का आभास अधिक हो।
- शिक्षक वक्ता न होकर श्रोता बने तथा शिक्षक, विद्यार्थी-समूह अथवा विद्यार्थी की भावनाओं एवं विचारों को प्रतिबिंबित करने के मात्र साधन हों।
- बच्चों से मुक्तोत्तर (Open ended) प्रश्न पूछे जायें जिसके फलस्वरूप विद्यार्थियों द्वारा विभिन्न प्रकार के उत्तर सोचने और दिए

दाता, अध्यापक अथवा मनोवैज्ञानिक, निर्देशन के लिए निर्धारित समय में 'स्वयं के ज्ञान' से संबंधित क्रियाओं का आयोजन कर सकते हैं। यदि विद्यालय में निर्देशन-सेवाएँ उपलब्ध न हों तो एक मनोवैज्ञानिक शिक्षा का कार्यक्रम प्रारंभ किया जाए जिसमें उन्हें आत्मज्ञान संबंधी जानकारी दी जाए। इस कार्यक्रम में कुछ ऐसी क्रियाएँ होंगी जो बच्चे स्वयं तथा कुछ समूह में करेंगें। स्वयं की जाने वाली क्रियाओं से उन्हें अपने विषय में सोचने का अवसर प्राप्त होगा कि उन्हें क्या अच्छा लगता है क्या नहीं, किन कार्यों में वे अपना अधिकांश समय बिताते हैं अर्थात उनके विचार में उनके व्यक्तित्व की क्या विशेषताएँ हैं साथ ही दूसरों के विचार में वे कैसे हैं आदि। समूह में की जाने वाली क्रियाओं से उन्हें दूसरों से अपने विषय में जानकारी मिलती है जिससे उनकी अपने विषय में

बनाई गई आत्मधारणा की पुष्टि होती है। पारस्परिक व्यवहार के द्वारा ही आत्मधारणा का वास्तविक स्वरूप सामने आता है। मनोवैज्ञानिक जोसेफ लफ्त के अनुसार किसी भी व्यक्ति के "स्व" को चार भागों में बाँटा जा सकता है।

मुक्त स्व (Open Self)– वह जिसकी जानकारी स्वयं तथा दूसरों को होती है।

छिपा स्व (Hidden Self)– जो स्वयं को ज्ञात है औरों को नहीं।

अंध स्व (Blind Self)– जो औरों को ज्ञात है स्वयं को नहीं।

अज्ञात स्व (Unknown Self)– जो किसी को ज्ञात नहीं।

जिन व्यक्तियों में आत्मज्ञान की कमी होती है वे अपने वास्तविक "स्व" से अनभिज्ञ रह जाते हैं और उनके "स्व" का अधिकांश भाग "गुप्त", "छिपा हुआ", अथवा "अज्ञात" रह जाता है। ऐसे ही व्यक्ति अपनी योग्यताओं, क्षमताओं को न पहचान पाने के कारण उनका प्रयोग अपने सुख तथा समाज की उन्नति के लिए नहीं कर पाते जिससे उनमें असंतोष और नैराश्य की भावना बनी रहती है। व्यक्ति में आत्म जागरूकता जितनी अधिक होगी उतना ही वह अपनी आत्मशक्ति व अपने आत्मज्ञान का प्रयोग स्वयं के विकास अर्थात अपनी क्षमताओं के विकास तथा कमियों को दूर करने के लिए कर पाएगा। शिक्षा के माध्यम से इस प्रकार की जागरूकता लाई जा सकती है। कुछ क्रियाओं का उल्लेख हम यहाँ करेंगे। बच्चों की परिपक्वता, परिस्थितियों, समय तथा साधनों की सुलभता को देखते हुए शिक्षक यदि स्वयं भी कुछ क्रियाएँ सोच पाएँ तो ये क्रियाएँ अधिक लाभकारी सिद्ध होंगीं।

इन मनोवैज्ञानिक क्रियाओं को हमने "भौतिक स्व", "सांवेगिक स्व" तथा "चिन्तन स्व" के ज्ञान के लिए की जाने वाली क्रियाओं में विभाजित किया है।

भौतिक स्व

अच्छे मानसिक स्वास्थ्य के लिए भौतिक आत्मबोध पहला कदम होगा। इसके अंतर्गत बालकों को उनके शारीरिक अंगों एवं प्रक्रियाओं की जानकारी दी जाए। शारीरिक स्वास्थ्य, शारीरिक स्वच्छता तथा पौष्टिक आहार पर निर्भर है। स्वास्थ्य संबंधी तथा खानपान संबंधी आदतें इसी आयु में बनती हैं। इसलिए अध्यापक थोड़ा समय इस प्रकार की जानकारी देने के लिए अवश्य निकालें कि सीमित साधनों में भी बच्चे स्वास्थ्य संबंधी नियमों का पालन किस प्रकार करें? सस्ता पौष्टिक आहार कैसे प्राप्त किया जाए आदि? साथ ही इस जानकारी का प्रयोग किस प्रकार शारीरिक शक्ति को बढ़ाने, बीमारियों से बचने और शारीरिक अंगों के विकास और दोषों को दूर करने के लिए किया जाय इसकी भी चर्चा की जाए।

संबद्ध क्रियाकलाप

अपने बारे में कुछ पंक्तियाँ लिखिए जिनमें आपके व्यक्तित्व की कुछ विशेषताएँ प्रदर्शित होती हों। बातचीत द्वारा अथवा लिखित रूप में इसे अपने किसी अभिन्न मित्र अथवा निकट संपर्क में रहने वाले व्यक्ति के साथ बाँटिए। देखिए कि आपकी अपने विषय में तथा दूसरों की आपके विषय में धारणाओं में कितनी समानता अथवा अंतर है?

हमारे देश में शारीरिक तथा मानसिक स्वास्थ्य के लिए योग क्रियाओं का प्रयोग सदियों से होता आ रहा है। इसके महत्व को देखते हुए हमारे कई विद्यालयों में योग शिक्षा के लिए शिक्षक नियुक्त किए गए हैं। विद्यालयों में शारीरिक शिक्षा के अंतर्गत भी विभिन्न प्रकार के व्यायाम सिखाए जाते हैं। योग शिक्षा में विभिन्न यौगिक क्रियाओं द्वारा अंगों में स्फूर्ति तथा शारीरिक शक्ति को बढ़ाया जा सकता है। "ध्यान" द्वारा तथा "विश्राम" द्वारा अंगों के शिथिलीकरण (Relaxation) की विधियाँ भी बच्चों को बताई जाती हैं। इन सभी विधियों से शारीरिक शक्ति को नियंत्रित किया जा सकता है। विद्यालयों में "योग शिक्षा", "व्यायाम", "ध्यान" आदि को शिक्षा का एक अंग इसीलिए बनाया गया है ताकि बच्चों में "शारीरिक स्व" संबंधी जागरूकता लाई जा सके। अच्छा स्वास्थ्य बालक में एक आत्मविश्वास उत्पन्न करता है जो कि सकारात्मक आत्मधारणा के लिए महत्वपूर्ण है।

सांवेगिक तथा चिन्तन "स्व"

इन क्रियाओं द्वारा बच्चों को उनकी भावनाओं, संवेगों तथा मनस्थिति का अनुभव कराया जाता है और विभिन्न परिस्थितियों, विषयों से संबंधित विचारों, मूल्यों, तर्कों द्वारा उन्हें अपने "चिन्तन स्व" तथा "सांवेगिक स्व" से अवगत कराया जाता है। हालाँकि हमें "आत्म" को एक संपूर्ण एकक के रूप में ही देखना होगा क्योंकि आत्म के ये विभिन्न पक्ष (भौतिक, सांवेगिक एवं चिन्तन) एक दूसरे से संबंधित हैं और इन क्रियाओं में सब एक साथ भी प्रभावित हो सकते हैं जैसे ध्यान का प्रयोग शारीरिक विश्रांति के साथ-साथ विचारों और भावनाओं को केंद्रित करने तथा नियंत्रित करने के लिए भी होता है।

यहाँ चर्चा के लिए हम किसी क्रिया में भावनाओं तथा किसी में विचारों को अधिक महत्व देंगे तथा कुछ सामान्य रूप से आत्मज्ञान के सभी पक्षों पर केंद्रित होंगी।

भावनाएँ हमारे अनुभवों का एक महत्वपूर्ण अंश होती हैं। प्रतिदिन हम अकेले या सबके साथ विभिन्न परिस्थितियों में व्यवहार करते हुए कभी प्रसन्नता, कभी दुख, कभी उदासी, कभी उत्तेजना, कभी परेशानी या घबराहट, कभी संतोष या असंतोष आदि भावनाओं का अनुभव करते हैं। सांवेगिक क्रियाओं की सहायता से बच्चे का ध्यान उसके द्वारा अधिक अनुभव की जाने वाली भावनाओं की ओर दिलाया जाता है ताकि वे इन विभिन्न भावनाओं के अंतर को पहचान सकें, किस प्रकार की भावनाओं की उसके जीवन में बहुतायत है क्योंकि सकारात्मक अथवा नकारात्मक भावनाएँ ही आत्मधारणा व आत्मविम्ब को प्रतिबिम्बित करती हैं। यदि बच्चे को प्रसन्नता, क्षमता, प्रेम, आशा, आनंद से संबंधित भावनाओं की अनुभूति अधिक होती हो तो उसकी आत्मधारणा सकारात्मक होगी इसके विपरीत जिसे दुख, पीड़ा, संशय, भय, नैराश्य से संबंधित भावनाओं की अनुभूति अधिक होती है उनमें नकारात्मक आत्मधारणा के विकास की संभावना अधिक होगी।

हमारे विचार, विश्वास, प्रवृतियाँ तथा मूल्य हमारे "चिन्तन स्व" को बनाते हैं प्रायः हमारी नकारात्मक भावनाएं तथा व्यवहार हमारे गलत, असंगत, अवास्तविक, विचारों, विश्वासों तथा मूल्यों के कारण होती हैं। सही एवं स्पष्ट आत्मधारणा के विकास के लिए विचारों एवं मूल्यों का स्पष्टीकरण आवश्यक है। यहाँ हम कुछ ऐसी क्रियाओं का उल्लेख करेंगे जिनसे विद्यार्थियों को अपने विचारों एवं मूल्यों के स्पष्टीकरण में सहायता मिलेगी।

यहाँ कुछ अभ्यास दिए जा रहे हैं जिन्हें शिक्षक विद्यार्थियों से कराएँ इससे विद्यार्थियों की अपने विषय में विचारों, धारणाओं और मूल्यों की पुष्टि होगी। साथ ही वे अपनी उन सभी भावनाओं, इच्छाओं और विचारों को अनुभव कर पाएँगें जो "आत्म" के विभिन्न अंश हैं। इससे उन्हें "आत्म परिचय" में सहायता मिलेगी। इस प्रकार की क्रियाओं से बच्चों में उस "अंतर्दृष्टि" तथा अंतर्शक्ति का विकास हो सकेगा जिससे उन्हें जीवन में आत्म-निर्देशन मिल सके।

जरा सोचिए

कुछ ऐसी परिस्थितियों व घटनाओं के विषय में सोचिए जिनके **फलस्वरूप** आपको बहुत आनंद अथवा प्रसन्नता का अनुभव हुआ हो। उस समय आपको किस तरह की भावनाओं का अनुभव हुआ? इसी तरह अप्रिय परिस्थितियों व घटनाओं के फलस्वरूप अनुभव की जाने वाली अपनी भावनाओं के विषय में भी विचार कीजिए।

स्वयं की दृष्टि में "मैं"

अभ्यास 1

5 से 8 वर्ष की आयु के बालकों एवं बालिकाओं के लिए।

उद्देश्य--इस अभ्यास द्वारा शिक्षक यह जान सकेंगे कि विद्यार्थी की अपने तथा अपने आसपास के महत्वपूर्ण व्यक्तियों और वस्तुओं के विषय में क्या धारणा है।

विधि--यह क्रिया स्कूल में कला परियोजना के रूप में की जा सकती है।

सामग्री– एक बड़ा चार्ट पेपर, पेंसिल आदि।

बच्चों को शीशे में देखकर अपना चित्र बनाने के लिए कहें। साथ ही उन्हें अपने माता पिता, भाई-बहन, दादा-दादी, पालतू पशु, अन्य प्रिय लगने वाली वस्तुएँ जैसे अच्छे लगने वाले खिलौने, फूल, पौधे, घर की वस्तुएँ आदि के भी चित्र एकत्र करने के लिए कहें। इस सभी चित्रों को भी बच्चे चार्ट में लगाएँ।

बच्चों में व्यावसायिक जागरूकता लाने के ध्येय से उन्हें माता-पिता तथा अन्य व्यक्तियों के चित्रों के नीचे उनके व्यवसाय लिखने के लिए कहें।

अभ्यास 2

9 से 11 वर्ष के बालक/बालिकाओं के लिए।

उद्देश्य–इन क्रियाओं से बच्चों को अपनी नकारात्मक तथा सकारात्मक भावनाओं की पुष्टि में सहायता मिलेगी।

विधि–अध्यापक बच्चों के साथ प्रतिदिन अनुभव की जाने वाली भावनाओं के विषय में बातचीत करें। विभिन्न प्रकार की सकारात्मक तथा नकारात्मक भावनाओं को प्रकट करने वाले शब्दों की सूची बनाकर कक्षा में लगाई जाय। इस सूची में अच्छी भावनाओं को प्रदर्शित करने वाले शब्द जैसे खुश, उत्तेजित, प्रसन्नचित, प्रोत्साहित आदि तथा कुछ शब्द नकारात्मक भावनाओं वाले जैसे निराश, दुखी, उदास, भयभीत, अकेला, क्रोधित आदि हों।

1. अपनी भावनाओं को लिखने के लिए विद्यार्थियों से एक छोटी नोटबुक बनाने के लिए कहें। उन्हें उस पर एक शीर्षक तथा उनकी कुछ भावनाओं को प्रदर्शित करता हुआ चित्र लगाने के लिए भी कहा जाय। शीर्षक कुछ इस प्रकार के हो सकते हैं जैसे 'मेरी भावनाएँ', 'मेरे मनोभाव', 'मेरे अनुभव' आदि।

वच्चों को हर पृष्ठ पर दिन में दो-तीन बार, उस समय अनुभव की जाने वाली भावनाओं को लिखने के लिए कहें। भावनाओं को और वास्तविक रूप देने के लिए चित्र, ड्राइंग आदि का प्रयोग भी किया जा सकता है।

एक सप्ताह वाद वच्चे अपनी "भावनाओं की पुस्तक" या डायरी को पढ़ें और देखें कि कौन-सी भावनाओं का अनुभव उन्हें बार-बार हो रहा है। इस नोट बुक को यदि बच्चे चाहें तभी औरों को दिखाया जाए, अन्यथा नहीं। जो बच्चे उसे औरों के साथ बाँटना चाहें वे अपनी भावनाओं के विषय में अपने साथियों को बताएँ ताकि उन्हें ये जानकारी मिल सके कि उनकी व औरों की भावनाओं में क्या अंतर है। यदि कुछ विद्यार्थियों की नकारात्मक भावनाएँ अधिक हैं तो वच्चे उनका सामना किस प्रकार करें और उन्हें किस प्रकार सुधारें इसकी भी चर्चा की जाए।

2. **नीचे दिए वाक्यों को पढ़कर रिक्त स्थानों की पूर्ति करो :**

मुझे अच्छा लगता है जब

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मुझे बुरा लगता है जब

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मुझे जव अच्छा लगता है तो मैं

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मुझे जब बुरा लगता है तो मैं

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अभ्यास 3

9 से 11 वर्ष की आयु के बच्चों के लिए।

उद्देश्य– स्वयं के प्रति जागरूकता लाने के लिए।

सामग्री– एक बड़ा चार्ट पेपर।

विधि– प्रत्येक विद्यार्थी को आधे चार्ट में अपना चित्र बनाने के लिए कहें। चित्र के नीचे उसे परिवार संबंधी सूचना, उसके द्वारा किए जाने वाले रुचिकर व अरुचिकर कार्य, प्रिय व अप्रिय लगने वाली वस्तुएँ और व्यक्तियों की सूचना देने के लिए कहें। ये सूचना लिखकर देने के साथ-साथ, चित्रों द्वारा, असली वस्तुएँ लगाकर, कार्टून आदि बनाकर भी दी जा सकती है। इस परियोजना में बच्चों को अपनी कल्पना और सृजनात्मकता दिखाने का अवसर मिलेगा। प्रत्येक विद्यार्थी द्वारा दी गई परियोजना अनोखे ढंग की होगी। बच्चे एक दूसरे के चार्ट को देखेंगे और उन पर दी गई सूचना से वे एक दूसरे के विषय में जानेंगे। बच्चे यह भी जान सकेंगे कि परिवार का तथा कक्षा का एक अंग होते हुए भी उनका एक अलग व्यक्तित्व है। उनकी रुचियाँ, प्रिय तथा अप्रिय लगने वाली वस्तुएँ भिन्न हैं। संभव हो तो प्रत्येक विद्यार्थी के चार्ट को बच्चो के डेस्क के पास कक्षा में लगाया जाए।

अभ्यास 4

8 वर्ष से अधिक आयु के बच्चों के लिए।

द्देश्य–आत्म जागरूकता, आत्मस्वीकृति एवं आत्म सम्मान के लिए।

नीचे दी हुई क्रियाओं से बच्चों को अपने व्यक्तित्व के सकारात्मक तत्वों के ज्ञान का मिलेगा जो उन्हें आत्मस्वीकृति की ओर ले जाएगी।

विधि– बच्चों से जो उन्हें अपने बारे में अच्छा लगता है और जो काम वह अच्छी तरह से कर सकते हैं उसकी सूची बनाने के लिए कहा जाए। साथ ही उनके अपने विचार में दूसरों को उनके बारे में क्या अच्छा लगता है उसे भी लिखें। इस सूचना को बालक/बालिका अपने साथी के साथ बाँटें।

सकारात्मक आत्मबिम्ब वाले बच्चे को इस प्रकार की सूची बनाने में कोई समय नहीं लगेगा। अध्यापक इस विधि से सकारात्मक आत्मबिम्ब वाले विद्यार्थियों का आसानी से पता लगा सकते हैं।

निर्देश– तुम जो कार्य अच्छी तरह कर सकते हो उन्हें लिखकर नीचे दिए वाक्यों में रिक्त स्थान की पूर्ति करो।

(1) मैं.................................सकता/सकती हूँ

(2) मैं.................................सकता/सकती हूँ

(3) मैं.................................सकता/सकती हूँ

(4) मैं.................................संकता/सकती हूँ

मुझे अपनी निम्नलिखित बातें पसंद हैं।

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दूसरों को मेरी निम्नलिखित बातें अच्छी लगती हैं।

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दूसरों की दृष्टि में "मैं"

अभ्यास 5

9 से 11 वर्ष की आयु के बच्चों के लिए।

उद्देश्य– इस अभ्यास से बच्चे को अपने विषय में दूसरों की धारणाओं का पता लग सकेगा। इससे उनके आत्मसम्मान में भी वृद्धि होगी।

एक पृष्ठ पर प्रत्येक बच्चे को अपना नाम लिखने के लिए कहें। इस पृष्ठ को एक से दूसरे साथी को देते हुए पूरे समूह में घुमाया जाए। प्रत्येक विद्यार्थी को पृष्ठ पर उस बच्चे (जिसका उस पर नाम लिखा है) की कोई अच्छी लगने वाली व्यक्तित्व-विशेषता लिखने के लिए कहा जाय। जब पृष्ठ विद्यार्थी के पास वापिस आ जाए तो वह दूसरों द्वारा लिखी गई व्यक्तित्व-विशेषताओं को दूसरे विद्यार्थियों को पढ़कर सुनाए, दूसरे साथी ताली बजाकर अथवा कुछ कहकर प्रशंसा करें।

अभ्यास 6

उद्देश्य– ''आत्म सम्मान'' (Self Esteem) में वृद्धि के लिए।

आठ-दस विद्यार्थियों के समूह बना दिए जाएँ। उनसे कुछ ऐसे विख्यात व्यक्तियों के नाम (जितने व्यक्ति समूह में हैं) लिखने के लिए कहें जिन्होंने किसी क्षेत्र में ख्याति पाई हो जैसे फिल्म अथवा दूरदर्शन कलाकार, कोई बड़ा आविष्कारक अथवा वैज्ञानिक, जाने पहचाने नेता, समाज सुधारक आदि। समूह के प्रत्येक व्यक्ति का नाम किसी विख्यात व्यक्ति के साथ जोड़ा जाए। एक प्रसिद्ध व्यक्ति के सामने कई विद्यार्थियों के नाम हो सकते हैं। बाद में इस मिलान के कारणों की समूह में चर्चा की जाए।

अभ्यास 7

उद्देश्य–दूसरों के साथ सामंजस्य कर पाने की क्षमता तथा दूसरों की दृष्टि में स्वयं का सकारात्मक अथवा नकारात्मक मूल्यांकन। अध्यापक एक प्रश्नावली बनाएँ जिनमें अपूर्ण वाक्य हों। बच्चों को इन वाक्यों को अपने आप कक्षा में अथवा अकेले में (बच्चों की इच्छानुसार) पूरा करने की स्वतंत्रता दी जाए।

1. दूसरों के विचार में मैं...
2. मुझे जब गुस्सा आता है तो दूसरे..
3. जब मैं खुश होता हूँ तो दूसरे सोचते हैं कि मैं...
4. मेरे विचार में दूसरे बच्चे मुझे पसंद करते हैं–.............हां............नहीं................
5. मुझ से बड़े मुझे...कहकर बुलाते हैं।
6. दूसरे बच्चों के विचार में मैं..
7. मैं दूसरों पर..के लिए निर्भर करता/करती हूँ।
8. जब मैं उदास होता/होती हूँ तो दूसरे...
9. औरों के विचार में मेरा...
10. औरों के विचार में मैं अपना...
11. औरों को देखने में मैं..

12. मेरे माता-पिता की इच्छा है कि मैं...
13. अध्यापकों के विचार में मेरा कक्षा-कार्य..
14. मेरे मित्र मुझे...
15. यदि मेरे मित्र मुझसे झगड़ा करें तो...
16. उपरोक्त प्रश्नों के उत्तरों द्वारा मुझे अपने विषय में मालूम हुआ कि मैं.................
17. अवकाश के समय मैं दूसरों के साथ...
18. जब मैं कोई गलती करता/करती हूँ तो मुझे दूसरे..
19. जब कोई मुझे डाँटता है तो मैं...
20. मुझे परेशानी में देखकर दूसरे...

इन सभी कथनों के उत्तरों में यदि विद्यार्थी की नकारात्मक भावनाएँ तथा विचार प्रदर्शित होते हों तो शिक्षकों को ऐसे विद्यार्थियों के विचारों एवं भावनाओं में परिवर्तन लाने के लिए विशेष प्रयास करने होंगे। विशेषकर कुछ सामूहिक कार्यक्रमों में सफलता, दूसरों द्वारा प्रशंसा तथा प्रोत्साहन मिलने पर उन्हें अपनी नकारात्मक आत्मधारणा को सकारात्मक बनाने की प्रेरणा मिलेगी। इससे सकारात्मकता की संभावना बढ़ेगी साथ ही दूसरों के साथ सामंजस्य कर पाने की क्षमता भी बढ़ेगी।

अभ्यास 8

मूल्य-स्पष्टीकरण के लिए
9 वर्ष से अधिक आयु के बच्चों के लिए

उद्देश्य–नीचे दी गई कुछ क्रियाओं से विद्यार्थियों को अपनी रुचियों व मूल्यों अर्थात उन सभी बातों की जानकारी होगी जो उनके लिए महत्वपूर्ण हैं।

(1) किसी छुट्टी के दिन शाम को तुम क्या करना पसंद करोगे? क्रमानुसार किन्हीं तीन पर निशान लगाओ :

– कोई अच्छी सी कहानी की पुस्तक पढ़ना। ☐
– दोस्तों के साथ सिनेमा देखना। ☐
– दोस्तों के साथ अपनी पसंद का खेल खेलना। ☐
– किसी रेस्तराँ में मित्रों के साथ बैठकर खाना। ☐
– अच्छे खिलाड़ियों द्वारा स्टेडियम में खेला जा रहा खेल देखना। ☐
– घर में बैठकर टी.वी. पर फिल्म देखना। ☐
– रेडियो में गाना सुनना। ☐

2. नीचे दिए गए कार्यों में कौन सा तुम्हारे लिए अधिक आवश्यक है? क्रमानुसार कथन के सामने संख्या लिखो :

– अच्छे मित्र बनाना। ☐
– अच्छा स्वास्थ्य रखना। ☐
– अपनी पसंद की पुस्तकें पढ़ना। ☐
– घर को साफ व सजाकर रखना। ☐
– अपनी पसंद के खेल को खेल पाना। ☐
– पढ़ाई में अच्छा कर पाना। ☐
– अच्छे विद्यालय में पढ़ना। ☐
– देखने में आकर्षक लगना। ☐
– अपनी पसंद की वस्तुएँ खाना। ☐
– बाहर घूमने जाना। ☐
– हरदम टी.वी. देख पाना। ☐

3. यदि तुम्हें किसी प्रतियोगिता में 1000/- रु. मिल जाएँ तो तुम उसका क्या करोगे?

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4. उन सभी वस्तुओं की सूची बनाओ जो तुम्हारे पास हैं और तुम्हें अच्छी लगती हैं। सबसे अच्छी लगने वाली वस्तु को सबसे पहले, उसके बाद उससे कम और फिर कुछ और कम, इस प्रकार पसंद के क्रमानुसार सूची बनाओ।

(1) .... (11) ....

(2) .... (12) ....

(3) .... (13) ....

(4) .... (14) ....

(5) .... (15) ....

(6) .... (16) ....

(7) .... (17) ....

(8) .... (18) ....

(9) .... (19) ....

(10) .... (20) ....

अभ्यास 9

नीचे निबंध के लिए कुछ विषय दिए गए हैं जो विद्यार्थियों को अपने विषय में सोचने, योजना बनाने तथा लक्ष्य निर्धारित करने में सहायक होंगे।

1. मेरी इच्छा है कि
2. मैं बड़ा/बड़ी होकर
3. मेरी अभिलाषा
4. मेरा जीवन लक्ष्य
5. मैं और मेरा देश
6. मेरे अधिकार और कर्तव्य
7. मैं और मेरा परिवार
8. मैं समाज के लिए बहुमूल्य हूँ क्योंकि
9. अच्छे मित्र की विशेषताएँ
10. मैं कैसा व्यक्ति बनना चाहूँगा/चाहूँगी?

सारांश–अध्याय 3

''स्व'' अथवा ''आत्म'' किसे कहते हैं? **आत्मधारणा का विकास कैसे होता है?**	''स्व'' व्यक्ति के विचारों–धारणाओं, क्षमताओं से मिलकर बनता है। हम अपने विषय में जैसा सोचते हैं, जो भी विचार रखते हैं, वही व्यक्ति की आत्मधारणा कहलाती है। माता-पिता, परिवार के अन्य सदस्यों, विद्यालय में शिक्षकों, सहपाठियों एवं मित्रों के संपर्क में घटी घटनाओं के फलस्वरूप आत्मधारणा का विकास होता है।
आत्मधारणा स्कूली सफलता को किस तरह प्रभावित करती है?	ऐसा प्रायः देखा गया है कि निम्न आत्मधारणा वाले छात्रों में सीखने की क्षमता कम हो जाती है। आत्म-विश्वास की कमी के कारण उनमें स्वाभाविक जिज्ञासा तथा सृजनात्मक योग्यता का भी अवरोध हो जाता है तथा हीनता की भावना के कारण उन्हें अपनी सफलता पर संदेह हो सकता है।
विद्यालय में किस प्रकार का वातावरण आत्मबिंब में वृद्धि में सहायक हो सकता है?	व्यक्तिपरक शिक्षण विधि तथा विद्यार्थियों के लिए भयरहित तथा चिन्तारहित वातावरण आत्मबिम्ब पर सकारात्मक प्रभाव डालते हैं। बच्चों की भावनाओं, विचारों को मान्यता देना, उनकी क्षमताओं के अनुरूप ही उनसे अपेक्षाएँ रखना आदि आत्म-विश्वास को बढ़ाने में सहायक होते हैं।

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कुछ प्रश्न

- क्या हर एक व्यक्ति का अपना एक अलग ही व्यक्तित्व है?
- क्या हर एक व्यक्तित्व, विलक्षण विशेषताओं का समूह है?
- इन विशेषताओं के आधार क्या हैं?

उद्‌देश्य

इस लेख को पढ़कर आप जान सकेंगे कि

- अलग-अलग व्यक्तियों की व्यक्तित्व-विशेषताओं में भिन्नता होती है।
- यह भिन्नता व्यक्ति की आनुवंशिकता और वातावरण के प्रभाव के कारण होती है।
- व्यक्तित्व के विकास में वातावरण का अत्यधिक महत्व है।
- व्यक्तिगत विभिन्नताओं को समझने के लिए उनके कारणों को समझना आवश्यक है।

व्यक्तिगत विभिन्नताओं को समझने की आवश्यकता

विद्यार्थियों में आत्मजागरूकता लाने के लिए सर्वप्रथम यह समझना आवश्यक है कि प्रत्येक विद्यार्थी दूसरे से भिन्न है तथा उसकी क्षमताएँ और रुचियाँ भी औरों से भिन्न हैं।

बहुत सी परिस्थितियों में व्यक्ति सही निर्णय नहीं ले पाते क्योंकि उन्हें अपनी इच्छाओं, आकांक्षाओं एवं क्षमताओं की पूरी जानकारी नहीं होती अतः उनके लिए यह निश्चय करना कठिन होता है कि उनके लिए क्या करना लाभप्रद एवं उचित है। उदाहरण के लिए व्यवसायिक निर्णय को ही लीजिए। कई व्यवसाय ऐसे हैं जिन्हें व्यक्ति अपनाना तो चाहेगा किन्तु वह उन्हें अच्छी तरह कर पाएगा कि नहीं यह बहुत से अन्य कारणों पर भी निर्भर है। व्यक्ति को सफलता उसी काम में मिलती है जिसे करने की उसमें योग्यता है और साथ ही जिसे करने में उसे आनंद आता है। इसलिए किसी भी परिस्थिति में व्यक्ति को यह निश्चय करने से पहले कि उसके लिए क्या करना उचित या संतोषजनक है यह जानना होगा कि ऐसे कौन-कौन से कार्य हैं जिन्हें वह अच्छी तरह कर सकता है या जिन्हें करने की उसमें योग्यता है साथ ही किन-किन कार्यो में उसे आनंद की अनुभूति होती है।

विभिन्नता प्रकृति का साधारण नियम है, कोई भी दो प्राणी एक से नहीं होते। कोई भी गुण दो व्यक्तियों में समान मात्रा में नहीं मिलता। प्रत्येक बच्चा स्वतंत्र व्यक्तित्व लेकर उत्पन्न होता है तथा क्रमशः अपने चारों ओर के वातावरण से प्रभावित होकर एक व्यक्ति विशेष के रूप में बड़ा होता है।

कक्षा में विभिन्नता

कक्षा में अनेक विषय पढ़ाए जाते हैं। प्रत्येक विषय को एक ही शिक्षक पढ़ाता है किन्तु उस विषय में क्या सभी विद्यार्थी समान अंक प्राप्त करते हैं? आप कहेंगे नहीं। एक बच्चा यदि एक विषय में अच्छा है तो दूसरा बच्चा दूसरे विषय में। यदि सुरेश को गणित के प्रश्न बहुत जल्दी समझ में आते हैं तो महेश को उन्हें समझने में बहुत देर लगती है। गीता हिन्दी में सर्वप्रथम आती है तो मीरा को हिन्दी बहुत कठिन लगती है। रमेश को विज्ञान में अधिक अंक प्राप्त होते है। तो उषा को अंग्रेजी में। विनय की हस्तकलाओं में रुचि है तो आलोक की चित्र बनाने में। इससे पता चलता है कि बच्चों की योग्यता तथा रुचि प्रत्येक विषय में अलग-अलग होती है।

सहपाठ्यक्रियाओं में भिन्नता

पढ़ाई-लिखाई की भाँति ही खेल-कूद, नाटक या संगीत में भी सभी विद्यार्थी एक जैसे कुशल नहीं होते। मनजीत क्रिकेट का बहुत अच्छा खिलाड़ी है तो साजिद फुटबाल अच्छा खेलता है। राजेश सांस्कृतिक कार्यक्रमों में अधिक भाग लेता है। शीला संगीत में निपुण है तो समीर तबला बजाने में सबसे आगे है।

घरेलू कार्यों में भिन्नता

परिवार में एक ही माता-पिता के दो बच्चे एक जैसी सुविधाओं के होते हुए भी भिन्न होते

एक ही परिवार में पलते हुए भी रीता और मीना की रुचियों में कितना अंतर दिखता है

हैं। रीता और मीना दो बहने हैं। रीता घर के कामकाज में बहुत कुशल है। वह परिवार के सभी सदस्यों की देखभाल बहुत अच्छी तरह करती है परंतु मीना का मन घर के कामकाज में नहीं लगता। उसकी गायन और वादन में रुचि है। वह आगे चलकर एक कलाकार बनना चाहती है।

सामूहिक कार्यों में भिन्नता

जीवन के अन्य क्षेत्रों में भी, जैसे सार्वजनिक आयोजनों में, समारोह या त्यौहार जैसे अवसरों पर भी प्रत्येक व्यक्ति के व्यवहार में अंतर मिलता है। आपने देखा होगा कि कुछ व्यक्ति बहुत घुल-मिल जाते हैं। वे मिलनसार होते हैं। उनके साथ सबका मनोरंजन भी होता है। परंतु कुछ संकोची तथा नीरस स्वभाव के होते हैं। इसी प्रकार समूह में कोई नेता बन जाता है तो कोई पीछे चलता है।

सारांश यह कि स्कूल, घर, समूह आदि जीवन के सभी क्षेत्रों में व्यक्तिगत अंतर देखने को मिलता है। कभी आपने सोचा है कि लोगों की योग्यता, रुचि तथा व्यवहार में इतना अंतर क्यों होता है? इस प्रकार के व्यक्तिगत अंतर के दो आधार माने गए हैं—आनुवंशिकता तथा वातावरण।

आनुवंशिकता क्या है?

वे सभी गुण तथा विशेषताएँ जो व्यक्ति के जन्म के समय उसमें होती हैं, व्यक्ति की आनुवंशिकता कहलाती हैं। ये जन्मजात गुण तथा विशेषताएँ व्यक्ति को अपने माता-पिता, दादा-दादी, तथा उनके पूर्वजों से मिलती हैं। हाँ, कोई भी किसी एक पूर्वज की सभी विशेषताओं को ग्रहण नहीं करता। हो सकता है कि उसका कद उसके पिता जैसा हो, उसकी आँखें माँ से मिलती-जुलती हों, नाक दादी जैसी हो और गोल चेहरा नाना जैसा हो। एक ही माँ के दो बच्चे भी भिन्न-भिन्न

> **जरा सोचिए**
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> अपने आसपास व्यक्तियों के साथ बातचीत व व्यवहार करते हुए आप स्वयं को किन-किन बातों में दूसरों से भिन्न पाते हैं?

प्रकार से इन विशेषताओं को ग्रहण करते हैं और इसीलिए एक ही माता-पिता के सभी बच्चे एक दूसरे से बहुत सी बातों में भिन्न दिखाई देते हैं। यहाँ तक कि जुड़वाँ भाई-बहन भी पूरी तरह एक जैसे नहीं होते।

कभी-कभी बच्चा अपने माता-पिता की मुख्य विशेषता को भी वंशानुगत नहीं कर पाता। उदाहरण के लिए एक पहलवान का लड़का दुबला-पतला हो सकता है, और एक अच्छे क्रिकेट खिलाड़ी का लड़का शायद बल्ला पकड़ना भी न सीख सके। आखिर ऐसा होता क्यों है? इसलिए कि उसके माता-पिता उसके बहुत से पूर्वजों में से एक हैं जिनसे वह यह विशेषताएँ प्राप्त करता है संभव है कि उसे यह गुण या अवगुण अपने दादा, दादी, नाना, नानी या उनके भी किसी पूर्वज से मिला हो।

व्यक्तित्व प्रदान करते हैं। यही कारण है कि हर व्यक्ति की अपनी एक अलग पहचान होती है।

आनुवंशिकता तथा वातावरण

बहुत समय से मनोवैज्ञानिक यह जानने के लिए प्रयत्नशील हैं कि किसी व्यक्ति के विकास में आनुवंशिकता और वातावरण का कहाँ तक योगदान है? किन्तु वे किसी निष्कर्ष पर नहीं पहुँच सके हैं। हाँ, अनुसंधान से इतना जरूर पता चलता है कि आनुवंशिकता का प्रभाव शरीर की रचना पर अधिक दिखाई देता है और मानसिक पक्ष पर कम।

बुद्धि के विषय में वैज्ञानिकों का मत है कि व्यक्ति की मानसिक योग्यता जन्म के समय पूर्णतया निश्चित नहीं होती यद्यपि बुद्धि की सीमा आनुवंशिकता पर कुछ मात्रा में निर्भर होती है किन्तु उसका विकास वातावरण पर अधिक निर्भर है। यही कारण है कि अच्छे वातावरण की सहायता से कम बुद्धि वाले बालक के बुद्धि स्तर को और अधिक बढ़ाया जा सकता है।

यह भी देखा गया है कि दो समान बुद्धि वाले व्यक्ति अलग-अलग व्यवसायों में सफलता प्राप्त करते हैं। इससे ज्ञात होता है कि मानसिक योग्यता एकात्मक नहीं है वरन बहुमुखी है। जिस बुद्धि स्तर का बच्चा विज्ञान या गणित में अच्छा होता है उसी स्तर का बच्चा कविता या इतिहास में अच्छा हो सकता है। बुद्धि के स्वरूप के विषय में और अधिक चर्चा हम अगले अध्याय में करेंगे।

जरा सोचिए

आपकी कौन-कौन सी शारीरिक विशेषताएँ आपके परिवार के अन्य व्यक्तियों से मिलती हैं और कौन सी नहीं?

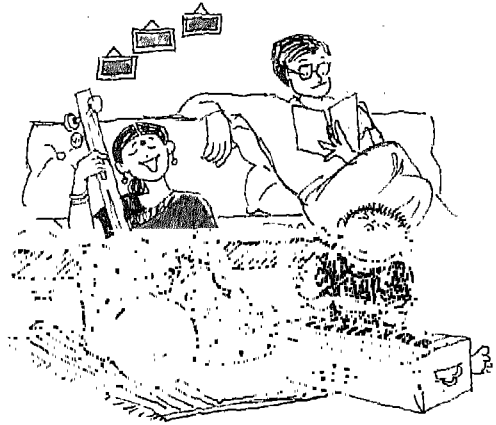
वातावरण क्या है?

वातावरण उन सब व्यक्तियों, वस्तुओं और परिस्थितियों से मिलकर बनता है जो बच्चे के व्यक्तित्व पर प्रभाव डालती हैं। वह कैसा भोजन करता है? परिवार के सदस्यों का उसके प्रति कैसा व्यवहार है? उसकी परिस्थितियाँ जिनमें वह बड़ा होता है, घर वालों के विचार और मूल्य, उसके पड़ोसी और मित्र, शिक्षक जिनसे वह शिक्षा प्राप्त करता है—सभी मिलकर उसका वातावरण बनाते हैं। बच्चा कुछ गुण और विशेषताएँ जन्म से लाता है जो वातावरण के साथ क्रिया-प्रतिक्रिया करते हुए बच्चे को एक विशेष प्रकार का अनोखा

जहाँ तक व्यक्तित्व की विशेषताओं का संबंध है आनुवंशिकता का प्रभाव व्यक्ति की आक्रामकता या भीरुता, विनयशीलता या संकोच और इसी प्रकार के अन्य गुणों या स्वभाव पर हो सकता है। परंतु हमारा अनुभव और वातावरण का प्रभाव व्यक्तित्व-विशेषताओं को बनाने में इतने महत्वपूर्ण हैं कि आनुवंशिकता के प्रभाव को स्वीकार करना भी कठिन प्रतीत होता है।

अंत में कहा जा सकता है कि आनुवंशिकता उन सभी गुणों का योग है जो बच्चा जन्म से ही लेकर आता है। ये गुण व्यक्ति को कुछ निश्चित विशेषताएँ प्रदान करते हैं। किन्तु इन गुणों को परिमार्जित एवं रूपांतरित कर एक विशेष साँचे में ढालने का काम वातावरण ही करता है। स्पष्ट है कि व्यक्ति की योग्यताएँ और विशेषताएँ, आनुवंशिकता और वातावरण के मिले जुले प्रभाव से ही विकसित होती हैं। अतः व्यक्तित्व के विकास में दोनों का योगदान होता है। आनुवंशिकता और वातावरण दोनों एक दूसरे के पूरक हैं। उनके सहयोग से ही व्यक्ति के गुणों तथा योग्यताओं का समुचित विकास संभव है।

वातावरण का योग्यताओं पर प्रभाव

किसी भी कार्य में सफलता प्राप्त करने के लिए जन्मजात क्षमता ही काफी नहीं उसके लिए उपयुक्त वातावरण का होना भी अत्यंत आवश्यक है। बच्चों के घर तथा स्कूल का वातावरण उनके विकास में बहुत सहायक होता है। जिस बच्चे के परिवार में माता-पिता की साहित्य या कला में

रुचि होती है वह बचपन से ही उन रुचियों के संपर्क में आ जाता है। उसे साहित्य या कला की शिक्षा स्वतः ही मिलती रहती है। उसी प्रकार जिस बच्चे के माता-पिता घर पर खेलकूद, हॉकी, क्रिकेट आदि की ही चर्चा करते रहते हैं वह विज्ञान, गणित, इतिहास आदि विषयों में अंक प्राप्त करने के लिए उतना प्रयत्नशील न होगा जितना कि उसका वह सहपाठी जिसके माता-पिता विद्याध्ययन को सबसे अधिक महत्व देते हैं।

रहने के स्थान का भी योग्यताओं एवं अन्य विशेषताओं के विकास में महत्वपूर्ण योगदान होता है। मान लीजिए किसी बच्चे में कृषि विज्ञान की अभिक्षमता विद्यमान है। परंतु जिस नगर में वह रहता है वहाँ कृषि पढ़ाने के लिए कोई साधन नहीं हैं तो उसे कृषि अभिक्षमता के विकास का

जरा सोचिए

आपके वातावरण की कौन सी सुविधाओं/असुविधाओं ने आपकी योग्यताओं व रुचियों के विकास पर अपना प्रभाव डाला है?

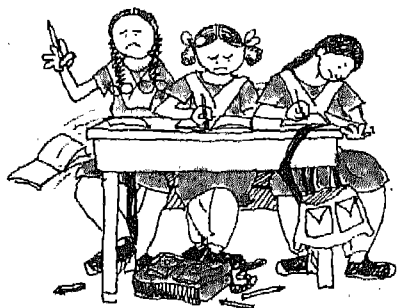
> **जरा सोचिए**
> आपके माता-पिता की कौन-कौन सी विशिष्ट योग्यताओं और रुचियों का आपकी विशेष योग्यताओं और रुचियों पर प्रभाव पड़ा है?

अवसर ही न मिल पाएगा। इसी प्रकार जिसे चित्रशाला, नाट्यशाला, संगीत सभा आदि में जाने का अवसर मिलता रहता है उसे कला और संगीत में रुचि तथा इनके द्वारा मनोरंजन करने का ज्ञान अवश्य हो जाएगा।

बच्चे के माता-पिता की अभिरुचियों, उद्देश्यों और मूल्यों का भी उसकी व्यक्तित्व-विशेषताओं के विकास में बहुत हाथ होता है। उदाहरण के लिए कुछ माता-पिता अपने बच्चे को किसी व्यावसायिक प्रशिक्षण में प्रवेश दिलाना अधिक अच्छा समझते हैं तो कुछ उसे उच्च शिक्षा देने के पक्ष में होते हैं। कुछ माता-पिता पुरानी परंपराओं तथा रीति-रिवाजों में विश्वास रखते हैं जबकि दूसरे आधुनिक तथा प्रगतिशील विचार के होते हैं। इस प्रकार बच्चों की रुचि, उद्देश्य और जीवन-मूल्यों में अंतर होना स्वाभाविक है।

स्कूल भी बच्चे की व्यक्तिगत विशेषताओं के विकास को प्रभावित करता है। जिस विद्यालय में

कक्षा-कार्य में रुचि
अच्छी सुविधाओं पर निर्भर है

छात्र अधिक संख्या में हैं व जिनके लिए पर्याप्त पठन स्थान तथा पाठ्य सामग्री नहीं है साथ ही शिक्षा का स्तर भी अच्छा नहीं है ऐसी स्थिति में पठन-पाठन कार्य में बाधा अवश्य आती है और विद्यार्थी अपनी योग्यताओं का विकास पूरी तरह नहीं कर पाएगा। परंतु ऐसे विद्यालय में जहाँ योग्य शिक्षक हैं, पाठ्य सामग्री, पुस्तकालय और प्रयोगशाला की अच्छी व्यवस्था है वहाँ उसे अपनी अभिक्षमताओं एवं रुचियों के विकास का अच्छा अवसर मिलेगा।

बच्चे की क्षमताएँ और प्रयास

प्रत्येक बच्चे का आनुवंशिकता तथा वातावरण बहुत सीमा तक निश्चित होता है। इनमें बहुत

अधिक परिवर्तन करना संभव नहीं। माता-पिता और अध्यापकों को चाहिए कि वे यह देखें कि वातावरण की सुविधाओं का अच्छे-से-अच्छा प्रयोग बच्चे के विकास के लिए हों। ध्यान रहे कि चाहे जैसे भी गुण उसे आनुवंशिकता से प्राप्त हों या जैसा भी वातावरण उसे मिला हो, बच्चा अपने प्रयास के द्वारा अपनी क्षमताओं का भली भाँति विकास कर सकता है। उदाहरण के लिए किसी बच्चे में कितनी ही रचनात्मक योग्यता क्यों न हो परंतु यदि वह आलसी है तो उसे एक अच्छा रचनाकार नहीं बनाया जा सकता। इसके विपरीत दूसरा बच्चा सामान्य योग्यता रहते हुए भी परिश्रम और लगन से कार्य करने के कारण अपनी प्राप्त योग्यता का पूर्ण लाभ उठाकर बड़ी सफलता प्राप्त कर सकता है।

किसी बच्चे में जो क्षमताएँ नहीं है अथवा वातावरण की जो सुविधाएँ उसे प्राप्त नहीं हैं उनके बारे में व्यर्थ चिन्ता करने से कोई लाभ नहीं। जिस स्थिति पर हमारा कोई नियंत्रण नहीं, जिसको हम बदल नहीं सकते उसके बारे में सोच-सोच कर समय नष्ट करने से क्या लाभ? इससे कहीं अधिक आवश्यक है उन योग्यताओं एवं क्षमताओं पर ध्यान देना जो बच्चे में हैं। अध्यापकों को चाहिए कि वे विद्यार्थियों को कक्षा तथा स्कूल के अन्य कार्यक्रमों की सहायता से उनकी व्यक्तित्व-विशेषताओं को जानने और विकसित करने के समुचित अवसर प्रदान करें।

सारांश–अध्याय 4

व्यक्तिगत विभिन्नताओं के क्या आधार हैं ?	आनुवंशिकता तथा वातावरण व्यक्तिगत विभिन्नताओं के दो प्रमुख आधार माने गए हैं।
आनुवंशिकता क्या है ?	वे गुण व विशेषताएँ जो व्यक्ति को अपने माता-पिता व अन्य पूर्वजों से प्राप्त होती हैं व्यक्ति की आनुवंशिकता कहलाती हैं।
योग्यताओं के विकास में आनुवंशिकता तथा वातावरण का क्या योगदान है ?	व्यक्ति की योग्यताएँ व व्यक्तिगत विशेषताएँ आनुवंशिकता तथा वातावरण के मिले-जुले प्रभाव से विकसित होती हैं।

अभ्यास

1. विभिन्न व्यक्तियों की व्यक्तित्व-विशेषताओं और व्यवहार में अंतर क्यों होता है?
2. आनुवंशिकता और वातावरण में क्या अंतर है?
3. 'हाँ' या 'न' में उत्तर दीजिए
   (i) व्यक्तित्व-विशेषताओं में अंतर का प्रमुख कारण व्यक्ति की आनुवंशिकता है।
   (ii) योग्यता न होने पर भी विद्यार्थी को किसी क्षेत्र में प्रवीणता के लिए प्रोत्साहित किया जा सकता है।
   (iii) दो समान बुद्धि वाले विद्यार्थी अलग-अलग विषयों में अधिक अंक प्राप्त कर सकते हैं।

5

कुछ प्रश्न

- बालकों के मानसिक स्तर, योग्यताओं और अन्य व्यक्तित्व-विशेषताओं के अंतर को कैसे समझा व मापा जा सकता है?
- आत्मबोध तथा आत्मनिर्देशन के लिए बच्चे को अपने तथा दूसरों के बीच विशेषताओं के अंतर को समझने की क्या आवश्यकता है?
- व्यक्तित्व-विशेषताओं के विकास में माता-पिता तथा अध्यापक की भूमिका का क्या महत्व है?
- व्यक्तित्व संबंधी सभी महत्वपूर्ण सूचनाओं को एक स्थान पर संक्षिप्त रूप से किस प्रकार सुव्यवस्थित किया जा सकता है?

उद्देश्य

इस लेख को पढ़कर आप जान सकेंगे कि

- बच्चों में विशिष्ट योग्यताओं की पहचान एवं विकास किस प्रकार किया जाय।
- बुद्धि का स्वरूप क्या है।
- व्यक्तित्व-विशेषताओं को समझने व मापने के लिए मनोवैज्ञानिक परीक्षणों तथा व्यावहारिक विधियों का प्रयोग किस प्रकार किया जाय।
- अध्यापकों द्वारा व्यावहारिक विधियों का प्रयोग अधिक वांछनीय है।
- विद्यालय में अध्याफ्क छात्र के व्यवहार का अध्ययन कर सकता है।

व्यक्तिगत विभिन्नताओं की पहचान एवं विकास

पिछले अध्याय में हमने यह तो जान लिया कि प्रत्येक व्यक्ति एक दूसरे से भिन्न है और इस भिन्नता के क्या कारण हैं। अध्यापक तथा माता-पिता के लिए प्रत्येक विद्यार्थी के अभिन्न व्यक्तित्व को जानना अत्यंत आवश्यक है ताकि वह बालक की क्षमताओं, योग्यताओं और आवश्यकताओं के अनुरूप ही शिक्षा का प्रावधान कर सकें। यह भी आवश्यक है कि प्रारंभिक वर्षों में ही विद्यार्थियों की विशिष्ट योग्यताओं की पहचान की जाए और घर और विद्यालय में उनके विकास के उचित अवसर उपलब्ध कराए जाएँ ताकि विद्यार्थी के व्यक्तित्व का सर्वांगीण विकास संभव हो।

जैसे-जैसे बच्चा बड़ा होने लगता है उसकी विशेषताएँ स्पष्ट होने लगती हैं। कुछ विशेषकों को जानना आसान है। कुछ कठिन शारीरिक विशेषकों जैसे लंबाई, भार आदि को मापना सरल है। परंतु मानसिक विशेषकों जैसे बुद्धि, विशिष्ट योग्यताओं और व्यक्तित्व विशेषकों को मापना अत्यंत कठिन है। वर्तमान समय में ऐसी विधियाँ एवं मनोवैज्ञानिक परीक्षण उपलब्ध हैं जिनसे मानसिक योग्यताओं और व्यक्तित्व विशेषकों को मापा जा सकता है। परंतु किसी भी व्यक्ति की विशेषताओं, रुचियों और आकांक्षाओं को मिनटों में ही समझ लेना बिल्कुल संभव नहीं है। यह एक सतत् प्रक्रिया है। हमारी विशिष्ट योग्यताएँ अवसर पाकर निखर उठती हैं और हमारी रुचियाँ परिस्थितियों के प्रभाव से परिवर्तित हो जाती हैं, अतः सही जानकारी के लिए काफी,अर्से तक अध्ययन किया जाना चाहिए। इस प्रकार किए गए अध्ययन के फलस्वरूप ही विद्यार्थी अपनी शिक्षा में, सहपाठ्य क्रियाओं में तथा व्यवसाय के संबंध में अधिक अच्छे निर्णय ले सकता है।

बुद्धि का स्वरूप एवं व्याख्या

छात्रों की बौद्धिक क्षमता, व्यक्तित्व को समझने तथा सीखने की क्रियाओं में निर्देशन देने के लिए अध्यापक को उनके बौद्धिक स्तर को जानना आवश्यक है। सैकड़ों वर्षों से ही व्यक्ति यह अनुभव करते आ रहे हैं कि कुछ व्यक्ति अधिक बुद्धिमान होते हैं और कुछ कम। लेकिन बुद्धि क्या है इसका स्वरूप कैसा है? इन प्रश्नों के उत्तर में मनोवैज्ञानिकों में एक लंबे समय से वाद-विवाद रहा है और आज तक भी इस विषय पर वे एकमत नहीं हो पाए हैं।

प्रारंभ में बुद्धि को एक सामान्य योग्यता के रूप में माना गया जोकि समस्त मानसिक कार्यों को प्रभावित करती है। इस मत के समर्थकों ने बुद्धि की व्याख्या 'एक योग्यता' के रूप में की। सन् 1905 में सर्वप्रथम बीने और साइमन दो फ्रांसीसी मनोवैज्ञानिकों ने बुद्धि को मापने का एक मनोविज्ञानिक ढंग निकाला। उन्होंने विभिन्न आयु के बच्चों के लिए अलग-अलग परीक्षण बनाए जो क्रम से कठिन और कठिनतर थे। एक बच्चा जिस आयु के बच्चों के लिए निर्धारित प्रश्नों के उत्तर दे देता है वही उसकी मानसिक आयु मानी जाती है उदाहरण के लिए राहुल जिसकी आयु 10 वर्ष है यदि 12 वर्ष के लिए निर्धारित प्रश्नों के

उत्तर दे देता है तो उसकी मानसिक आयु 12 वर्ष हुई यद्यपि उसकी वास्तविक आयु 10 वर्ष ही है। बुद्धि के इस एकाकी स्वरूप का ज्ञान एक संख्या के रूप में होता है और इससे प्राप्त बुद्धि लब्धि के आधार पर हम व्यक्तियों को प्रतिभाशाली, श्रेष्ठ बुद्धि, सामान्य, निम्नबुद्धि, मानसिक रूप से पिछड़े आदि वर्गों में बाँट सकते हैं। इस प्रकार की जानकारी का प्रयोग माता-पिता तथा अध्यापक, बच्चों के लिए उपयुक्त विद्यालय चयन, शिक्षण विषय तथा शिक्षण पद्धति संबंधी निर्णय लेने के लिए कर सकते हैं।

आधुनिक विचारधारा के अनुसार बुद्धि बहुत सी मानसिक योग्यताओं का मिश्रण है। यह एकक विशेषक नहीं है इसमें अनेक तत्व सम्मिलित हैं। तत्व विश्लेषण पद्धति के द्वारा इन तत्वों के स्वरूप का पता लगाने का प्रयत्न किया गया है। एक मत के अनुसार बुद्धि उन अनेक योग्यताओं का मिश्रण है, जो भिन्न-भिन्न समूहों में पायी जाती हैं। इन समूहों के आधार पर कुछ प्राथमिक या मूल मानसिक योग्यताएँ हैं जिनका उल्लेख अधिकांश मनोवैज्ञानिकों ने किया है। वे इस प्रकार हैं :

- शाब्दिक
- शब्द प्रवाह
- सांख्यिक
- दैशिक
- तार्किक
- यांत्रिक
- प्रत्यक्ष ज्ञान

पिछले कुछ वर्षों में मनोवैज्ञानिक गिल्फोर्ड ने बुद्धि के बहुतत्वी स्वरूप की व्याख्या की है तथा बुद्धि संरचना (Structure of Intellect) के सिद्धांत को स्थापित किया है। इसके अनुसार उसने बुद्धि को अनेक (120 से भी अधिक) योग्यताओं में विभाजित किया है। प्रत्येक मानसिक योग्यता के स्वरूप को उसमें निहित संक्रियाओं (Operations), विषयवस्तु (Content) एवं उत्पादन (Product) के एक संभावित सम्मिश्रण के आधार पर जाना जा सकता है। इस प्रकार हम विभिन्न व्यक्तियों में पाए जाने वाले सूक्ष्म से सूक्ष्म बौद्धिक अंतरों को भी समझ सकते हैं और किसी विशिष्ट कार्य के लिए आवश्यक योग्यता की पहचान कर उसके विकास के लिए प्रयत्न कर सकते हैं।

आधुनिकतम विचारधारा के अंतर्गत मनोवैज्ञानिक हार्वड गार्डनर ने अनेक प्रकार की बुद्धि (Multiple Intelligence) की बात की है। व्यक्ति अपनी बुद्धि को भिन्न-भिन्न प्रकार से दर्शाते हैं जैसे कि हो सकता है कोई भाषा में, कोई संगीत में, कोई सामाजिक संबंध स्थापित करने में तथा कोई शारीरिक शक्ति का प्रयोग कर पाने में अपनी बुद्धिमत्ता दिखाए। इस प्रकार व्यक्ति अपनी बुद्धि को कई प्रकार से व्यक्त कर सकते हैं। इस विचारधारा के अनुसार निम्न शैक्षिक उपलब्धि वाले बच्चे को निम्न बुद्धि या बुद्धिहीन नहीं कहा जा सकता, हो सकता है वह अपनी बुद्धि का प्रदर्शन किसी अन्य क्षेत्र में कर पाए। हमारे देश में अभी मानसिक योग्यताओं को बहुत सूक्ष्म रूप में समझने के लिए मनोवैज्ञानिक परीक्षण उपलब्ध नहीं हैं इसलिए यहाँ हम मोटे तौर पर कुछ मानसिक योग्यताओं का ही उल्लेख करेंगे जिनका विद्यार्थियों के पाठ्य विषयों एवं व्यावसायिक क्षेत्रों से महत्वपूर्ण संबंध है। वैसे भी उपयुक्त प्रशिक्षण न होने के कारण शिक्षकों द्वारा मनोवैज्ञानिक परीक्षणों का प्रयोग संभव नहीं है। विभिन्न योग्यताओं की पहचान वे प्रेक्षण, शैक्षिक उपलब्धि तथा अन्य क्रिया कलापों में संप्राप्ति के आधार पर कर सकते हैं। कुछ प्रमुख योग्यताएँ इस प्रकार हैं :

शाब्दिक योग्यता (Verbal Ability)

शाब्दिक अर्थग्रहण, शाब्दिक तर्क और शब्द

भंडार आदि के परीक्षणों द्वारा इस योग्यता का मापन किया जाता है। इसमें शब्दों के प्रयोग से संबंधित योग्यताएँ जैसे शब्दों के अर्थ समझना, उन्हें आसानी से प्रयोग में लाना, एक बात के लिए कई-कई शब्दों को काम में लाना आदि सम्मिलित हैं। योग्य व्यक्ति शब्दों या वाक्यों में कठिन विचारों या भावों को आसानी से और शीघ्र ग्रहण कर लेता है। स्कूल में बहुत से पाठ्यक्रमों में विशेषकर साहित्यिक, मानविकी आदि में शैक्षिक सम्प्राप्ति इस योग्यता पर निर्भर है। एक विद्यार्थी के कॉलेज अथवा विश्वविद्यालय में शिक्षा ग्रहण करने के निर्णय में इसका बहुत महत्व है। प्रत्येक व्यवसाय में ऊँचे पद के कार्य के लिए इस योग्यता की आवश्यकता होती है।

सांख्यिक योग्यता (Numerical ability)

सांख्यिक तर्क, सांख्यिक परिकलन, सांख्यिक क्रम, सांख्यिक समस्याओं आदि परीक्षणों द्वारा सांख्यिक योग्यता का मापन किया जाता है। इस योग्यता से विद्यार्थी योग, ऋण, गुणा या भाग आदि गणित की क्रियाएँ ठीक-ठीक और तेजी से कर लेता है। यह योग्यता शिक्षा के क्षेत्र में गणित, भौतिकशास्त्र, तकनीकी शिक्षा तथा इंजीनियरिंग शिक्षा में सफलता के विषय में काफी सीमा तक भविष्योक्ति कर सकती है।

दैशिक योग्यता (Spatial ability)

यह वस्तुओं के रूप, स्थान एवं आकार परिवर्तन दृष्टिगत करने की योग्यता है। इसमें योग्य व्यक्ति यह समझ पाता है कि किसी वस्तु को यदि घुमाकर या उलटकर रखा जाए तो उसका आकार कैसा प्रतीत होगा। अधिकांश यांत्रिक कार्यों में वस्तुओं के स्थान संबंधों को समझने के लिए इस योग्यता की आवश्यकता होती है। यह योग्यता डिजाइनिंग, नक्शानवीसी, ड्राइंग, पेंटिंग तथा अन्य विज्ञान के पाठ्यक्रमों तथा प्रशिक्षण में सफलता की भविष्योक्ति में महत्वपूर्ण है।

यांत्रिक योग्यता (Mechanical ability)

यांत्रिक उपकरणों के प्रयोग परीक्षण, यांत्रिक अर्थग्रहण परीक्षण, तथा यांत्रिक अनुकूलन परीक्षण द्वारा यांत्रिक योग्यता का मापन किया जाता है। वैसे तो प्रत्येक व्यवसाय में इस योग्यता का होना सहायक है परंतु पॉलिटेक्नीक, इंजीनियरिंग या औद्योगिक प्रशिक्षण संस्थान में शिक्षा की सफलता की भविष्योक्ति में इस योग्यता का महत्वपूर्ण स्थान है।

तार्किक योग्यता (Reasoning abilty)

इस योग्यता से समस्याओं का हल निकाला जाता है। इससे किसी भी समस्या के प्रत्याशित फल या परिणाम की कल्पना कर ली जाती है। यह योग्यता सभी योग्यताओं में श्रेष्ठ स्थान रखती है। वास्तव में यह ऐसी क्षमता है जो सभी योग्यताओं को प्रभावित करती है। मानसिक क्रियाओं में तर्क के द्वारा या चिन्तन से किसी समस्या का हल निकालना सबसे ऊँची क्रिया है विशेषकर लेखन, पत्रकारिता, कानून आदि क्षेत्रों में सफलता के लिए यह योग्यता विशेष रूप से सहायक है।

प्रत्यक्षज्ञान योग्यता (Perceptual ability)

समरूप चित्रों, आकृतियों, वस्तुओं और शब्दों के जोड़ों के परीक्षण द्वारा प्रत्यक्ष ज्ञान योग्यता का मापन किया जाता है। यह योग्यता वस्तुओं, चित्रों, आकृतियों आदि में समानता और भेद को सरलता से समझने की क्षमता प्रदान करती है। लिपिक

कार्यों में प्रत्यक्षीकरण की गति एवं शुद्धता ही मुख्य है। एक सफल लिपिक शब्दों, अक्षरों तथा संख्याओं का प्रत्यक्षीकरण बड़ी तेजी से कर लेता है। शीघ्रता के साथ-साथ उसके कार्य में बहुत शुद्धता रहती है क्योंकि हिसाब-किताब रखने में, फाइलिंग या अन्य रिकार्ड रखने की क्रिया में इस योग्यता की विशेष आवश्यकता होती है।

योग्यताओं के मापन के लिए हमारे देश में उपयुक्त मानकीकृत परीक्षण बहुत ही कम हैं। वैसे भी मानकीकृत परीक्षणों के प्रयोग के लिए विशेष प्रशिक्षण की आवश्यकता होती है जिसके अभाव में अध्यापकों के लिए इन परीक्षणों का प्रयोग संभव नहीं है। यदि परीक्षण उपलब्ध हो भी तो छोटी उम्र के बच्चों पर मनोवैज्ञानिक परीक्षणों का प्रयोग करना कठिन ही होता है। इसके कई कारण हैं जैसे—भाषा के पूरी तरह विकसित न होने के कारण परीक्षण के आदेशों को न पढ़ पाना तथा ठीक से न समझ पाना, विचारों को अच्छी तरह व्यक्त न कर पाना, ध्यान की कमी, परीक्षण करने के लिए इच्छा का अभाव आदि। इन कारणों से हो सकता है बच्चा परीक्षण को विधिवत न कर पाए। अतः इस तरह किए गए परीक्षणों की विश्वसनीयता कम होगी। परीक्षण देना ही हो तो उसे व्यक्तिगत रूप से देना होगा जिसमें समय भी अधिक लगेगा। इसलिए छोटी उम्र के बच्चों के व्यक्तित्व के अध्ययन के लिए परीक्षणों के स्थान पर अन्य व्यावहारिक विधियों का प्रयोग ही अधिक उचित माना जाता है जिनमें प्रेक्षण, साक्षात्कार, प्रश्नावली आदि प्रमुख हैं। अध्यापक इन विधियों का प्रयोग आसानी से कर सकते हैं। इसी उद्देश्य से संक्षेप में हम इन विधियों की चर्चा करेंगे।

जरा सोचिए

विभिन्न क्षेत्रों में अपनी उपलब्धियों के आधार पर आप अपने में कौन-कौन सी योग्यताएँ अन्य व्यक्तियों की तुलना में औसत से अधिक पाते हैं?

व्यक्तित्व-निर्धारण की व्यावहारिक विधियाँ

प्रेक्षण

बच्चों की व्यक्तित्व-विशेषताओं को जानने व समझने के लिए सबसे सरल व प्रचलित विधि प्रेक्षण है। छोटे बच्चों का प्रेक्षण कठिन नहीं है

छात्रों के गुणों व प्रतिभाओं को पहचानने में प्रेक्षण बड़ा उपयोगी होता है

क्योंकि उनका व्यवहार उनके विचारों और भावनाओं को काफी सीमा तक प्रकाशित करता है। इस उम्र में उनकी प्रतिक्रियाएं भी बहुत ही स्वाभाविक होती हैं। छात्रों के निरंतर संपर्क में रहने के कारण अध्यापकों के लिए इस विधि का प्रयोग बहुत सहज है। परंतु इस विधि से प्राप्त जानकारी की विश्वसनीयता को बढ़ाने के लिए इसका वैज्ञानिक रीति से प्रयोग करना आवश्यक है।

एक प्रेक्षक को पहले यह सोचना होगा कि उसके प्रेक्षण का उद्देश्य क्या है। वह व्यक्तित्व के किस पहलू के बारे में अध्ययन करना चाहता है? किन परिस्थितियों में प्रेक्षण किया जाए तथा किस प्रकार का व्यवहार और क्रियाएँ प्रेक्षण के योग्य हैं? इसके लिए यह भी आवश्यक है कि शिक्षक को बच्चों के प्रारंभिक विकास स्तर के सामान्य व्यवहारों का अच्छा ज्ञान हो उसमें उनकी समस्याओं के प्रति संवेदनशीलता हो। प्रेक्षक को उन्हीं प्रतिक्रियाओं की ओर विशेष ध्यान देना चाहिए जिनसे विद्यार्थी के व्यक्तित्व पर प्रकाश पड़ता हो। ऐसा भी संभव नहीं कि व्यक्ति की सारी क्रियाओं का लेखन कर लिया जाय और न ही यह उचित होगा कि इने गिने व्यवहारों के आधार पर ही धारणाएँ बना ली जाएँ। अध्यापक को ऐसी परिस्थितियों और व्यवहारों को ही प्रेक्षण के लिए चुनना चाहिए जिनसे बच्चे के विकास एवं समायोजन को समझने में सहायता मिले। कक्षा में, खेल के मैदान में, परिवार में, साक्षात्कार के समय छात्र की प्रतिक्रियाओं का निरीक्षण किया जा सकता है। कक्षा में अध्यापक बच्चे के निम्नलिखित व्यवहारों का अध्ययन कर सकता है।

सीखने की क्षमता

मुद्रित वस्तुओं को पढ़ने तथा समझने की गति, उच्चारण करके पढ़ने में शुद्धि, शब्द भण्डार, गणित की समस्याओं का हल निकालने में सफलता या असफलता, उत्तर देने की उत्सुकता, स्कूल के समय पढ़ने की आदत, स्मरण शक्ति का प्रकाशन, भाषा सीखने में सरलता, कक्षा में समय पर आना, ध्यान लगाना, कार्य में लगे रहना, पाठ्य कार्यों से मन न चुराना, साथियों की नकल न कर लेना आदि।

शारीरिक क्षमता

कम सुनना या कम दिखाई देना, अक्सर खाँसी, जुकाम, बुखार रहना, आँख से पानी बहना, आँखें मलना, पौष्टिक भोजन के अभाव में शरीर का अविकसित होना, शीघ्र थकावट होना, अधिक नींद आना, बोलने में कठिनाई होना, स्वास्थ्य संबंधी आदतें न होने के कारण शरीर और कपड़े साफ न होना, अन्य कोई शारीरिक दोष अथवा बीमारी के लक्षण होना, अत्यधिक सफाई का ध्यान होना।

सामाजिक संबंध एवं सांवेगिकता

अत्यंत क्रोध करना, जिद्दीपन, कक्षा में सबसे आगे रहने के लिए लड़ना, दूसरों के काम में बाधा डालना, हरदम लड़ना, साथियों को चिढ़ाना, तंग करना, रोब जमाना, जल्दी से रो पड़ना, अत्यधिक क्रियाशील रहना, शर्मीलापन, घबरा जाना, नाखून कुतरना, अंगूठा चूसना, दूसरों के साथ न खेलना, साथियों में अप्रिय होना, सामूहिक कार्यों में मिलकर काम न कर पाना, अपनी वस्तुओं को दूसरों को देने में आनाकानी करना, काम के लिए स्वेच्छा से आगे न आना, पीछे-पीछे रहना आदि।

बच्चे का घर या परिवार में क्या स्थान है? परिवार के सदस्यों के साथ कैसा संबंध है? इस तरह की महत्वपूर्ण सूचना माता-पिता या परिवार के अन्य सदस्यों से प्राप्त की जा सकती है।

प्रेषित व्यवहार का अभिलेखन तथा लिखे

गए तथ्यों की व्याख्या इस विधि के अन्य महत्वपूर्ण चरण हैं जिनके लिए वच्चों के व्यवहार को समझने का अनुभव और कौशल की आवश्यकता होती है। अध्यापक निरीक्षित व्यवहार को लिखते समय यह ध्यान रखें कि वे किसी भी छात्र के विषय में अपनी निजी धारणाओं और विचारों से प्रभावित न हों। प्रेक्षण की विश्वसनीयता को बढ़ाने के लिए व्यवहारों का निष्पक्ष निरीक्षण करना जरूरी है। एक से अधिक प्रेक्षकों द्वारा एक स्थिति का प्रेक्षण भी उसकी विश्वसनीयता को बढ़ाता है। इसके अतिरिक्त जव प्रेक्षक एक ही व्यक्ति का कई बार प्रेक्षण करता है और इन अनेक अभिलेखों में जब एकरूपता मिलती है तो भी उसे विश्वसनीय समझा जाता है।

प्रेक्षित व्यवहार के अभिलेखन की दो प्रचिलत विधियाँ हैं : वृत्तांत अभिलेख (Anecdotal Records) तथा निर्धारण मापनी (Rating Scales)।

वृत्तांत अभिलेख

किसी भी वच्चे के व्यवहार या प्रतिक्रिया को जिसे अध्यापक अथवा प्रेक्षक महत्वपूर्ण समझता है, लिख लेता है। इसे ही वृत्तांत अभिलेख कहा जाता है। यह एक विशिष्ट ढंग का प्रेक्षण है जिसमें वच्चे के चरित्र एवं व्यक्तित्व संबंधी वास्तविक स्थिति में की गई क्रियाओं का वर्णन किया जाता है। उन्हीं क्रियाओं का लेखन किया जाता है जो अध्यापक की दृष्टि से महत्वपूर्ण हों अर्थात जिनसे व्यक्तित्व की विशेषता प्रकाशित होती हो। कुछ लम्बी अवधि तक जब इस प्रकार के लेखन संग्रहित हो जाते हैं तो इन सबके आधार पर संक्षिप्त विवरण तैयार किया जाता है जिसे छात्र के व्यक्तित्व की विभिन्न विशेषताओं के कथन के लिए संचयीवृत (Cumulative Record) में लगा दिया जाता है।

निर्धारण मापनी

प्रेक्षित तथ्यों का सार निकालकर उसे संख्यात्मक रूप में व्यक्त करने को निर्धारण विधि कहते हैं। इस विधि से अध्यापक यह जान सकता है कि किसी भी बच्चे में कोई व्यक्तित्व-विशेषता अथवा गुण कितनी मात्रा में विद्यमान है। गुणों की मात्रा के लिए कुछ ऐसे विशेषणात्मक या विवरणात्मक शब्दों का प्रयोग किया जाता है जिनसे व्यक्ति की क्रियाओं का ठीक-ठीक निर्धारण हो सके। उदाहरण के लिए कुछ प्रयुक्त होने वाले शब्दों जैसे—अति उत्तम, साधारण, निम्न, निम्नतम आदि को किसी एक व्यक्तित्व-विशेषता के सामने लिख दिया जाता है। अध्यापक के विचार में वह विशेषता जिस मात्रा में वच्चे में विद्यमान है वह उसी शब्द पर चिन्ह लगा देता है।

इस पुस्तक में इस विधि का विस्तृत विवरण संभव नहीं है। जो अध्यापक इस प्रकार की निर्धारण मापनी बनाना चाहते हों वे मनोवैज्ञानिक परीक्षण एवं मापन की पुस्तकों से इस विषय पर अधिक जानकारी प्राप्त करें।

साक्षात्कार (Interview)

दो व्यक्तियों के एक दूसरे के सम्मुख वार्तालाप को साक्षात्कार कहा जाता है। अपितु यह तथ्यों को एकत्र करने का एक मुख्य साधन है, छोटी उम्र के वच्चों के व्यक्तित्व अध्ययन के लिए इस विधि का प्रयोग वहुत सफलता से नहीं किया जा सकता। अतः इस स्तर पर इसका प्रयोग माता-पिता के साथ वातचीत द्वारा बच्चे के विषय में अनेक तथ्यों को इकट्ठा करने के लिए किया जाता है। वच्चे की स्कूल की ओर मानसिक तत्परता, अभिरुचियाँ, अध्ययन संवंधी आदतें, पारिवारिक पृष्ठभूमि एवं सूचनाएँ तथा वच्चे की दैनिक चर्या के विषय में तथ्यों का संकलन

साक्षात्कार की क्रिया से होता है। इसके द्वारा अध्यापक भी माता-पिता को उनके बच्चे के स्कूली व्यवहार, शैक्षिक उपलब्धि तथा अन्य क्रिया कलापों तथा स्कूली कार्यों में रुचि से अवगत करा सकते हैं। थोड़ी बड़ी उम्र के बच्चों के साथ अध्यापक साक्षात्कार का प्रयोग आश्वासन देने, उत्साहित करने, बालकों की कठिनाइयों के विषय में सुनने, परामर्श देने आदि के लिए करते हैं।

साक्षात्कार का प्रयोग बच्चे के व्यवहार के प्रेक्षण के लिए भी किया जाता है। साक्षात्कार के समय बच्चे के हाव-भाव, भाषा-प्रयोग, भाव भंगिमाओं, वेशभूषा तथा अन्य शारीरिक विशेषताओं के अवलोकन से उसकी स्वास्थ्य संबंधी आदतों, सामाजिक-आर्थिक स्थिति तथा व्यक्तित्व समायोजन संबंधी तथ्यों को प्राप्त किया जा सकता है। बच्चों के साथ साक्षात्कार के लिए स्नेहपूर्ण वातावरण का होना आवश्यक है। प्रश्न इस प्रकार घुमाफिरा कर तथा स्नेह से पूछे जाएँ ताकि बच्चों में किसी प्रकार का भय, संकोच तथा निराशा की भावना उत्पन्न न हो और वह खुलकर अपनी भावनाओं और विचारों को व्यक्त कर सकें। इस विधि की सफलता के लिए अध्यापक में निम्नलिखित विशेषताएँ होनी वांछनीय है।

- धैर्यपूर्वक सुनना
- संवेदनशीलता
- स्वीकृति एवं दूसरों को उनके दृष्टिकोण से समझने का प्रयास
- वस्तुनिष्ठता
- बालक की योग्यता तथा सामर्थ्य के प्रति विश्वास
- निष्कपटता तथा अकृत्रिमता

वैसे तो साक्षात्कार के सही उपयोग के लिए व्यक्तिगत निपुणता तथा कौशल की आवश्यकता होती है जो विशेष प्रशिक्षण द्वारा ही प्राप्त की जा सकती है इसलिए अच्छा होगा कि जिनकी समस्याएँ भावना प्रधान हों और जिनकी मनः स्थिति, भावों तथा व्यवहार को समझना अध्यापक के लिए कठिन हो ऐसे बच्चों की सहायता के लिए वे अपने आसपास के किसी मनोवैज्ञानिक अथवा निर्देशनकर्ता की सलाह लें। परंतु फिर भी तथ्यों के संकलन तथा विशेषकर माता-पिता से विचार-विमर्श के लिए इस विधि को बहुत उपयोगी माना गया है। अच्छा होगा कि साक्षात्कार के पहले ही यह निश्चित कर लिया जाय कि बातचीत किस विषय से संबंधित होगी तथा कौन से प्रश्न पूछे जाएँगे। प्रश्नों को पहले ही लिखकर एक सूची बना ली जाती है और उन्हीं को आधार मानकर बातचीत की जाती है। प्रश्नों की भाषा और उनका रूप ऐसा हो ताकि उत्तर देने वाला व्यक्ति केवल 'हाँ' या 'न' में ही उत्तर न देकर कुछ वाक्यों में ही वांछनीय सूचना दे।

प्रश्नावली

व्यक्ति के अध्ययन के लिए एक अन्य विधि है, प्रश्नावली। इसमें सरल भाषा में प्रश्न दिए जाते हैं जो व्यक्ति के विषय में साधारण सूचनाएँ प्राप्त कराने में सहायक होते हैं। कुछ योग्यताओं और व्यक्तित्व गुणों की जानकारी के लिए प्रश्नावलियाँ बना ली जाती हैं। यद्यपि मानकीकृत प्रश्नावलियाँ तथा सूचियाँ उपलब्ध हो सकती हैं परंतु हो सकता है अध्यापक इनका भली भाँति प्रयोग न कर पाए इसलिए उन्हें अपनी आवश्यकतानुसार खुद ही प्रश्नावली बनानी चाहिए।

छोटे बच्चे जो अपरिपक्व होते हैं और जिन्हें भाषा का उतना ज्ञान नहीं होता, उनके विषय में सूचनाएँ उनके माता-पिता, अभिभावक तथा अन्य संपर्क में आने वाले महत्वपूर्ण व्यक्तियों से प्राप्त की जानी चाहिएँ और प्रश्नावली उन्हीं से भरवायी

जानी चाहिए। थोड़ी बड़ी उम्र के विद्यार्थी स्वयं प्रश्नावली के उत्तर दे सकते हैं। कभी-कभी बड़े छात्रों को भी प्रश्नावली के उत्तर देने में अध्यापक तथा माता-पिता के सहयोग की आवश्यकता होती है। ऐसी एक प्रश्नावली जिससे व्यक्तिगत सूचना एकत्रित की जा सकती है नमूने के तौर पर संलग्न सूची (Appendix) में दी गई है। ऐसे विद्यार्थी जो थोड़े परिपक्व हैं और जिनकी पठनयोग्यता अच्छी है वह प्रश्नावलियों द्वारा अपनी अभियोग्यता, कौशल और विशेष क्रियाओं में योग्यता का थोड़ा बहुत पता लगा सकते हैं। यहाँ कुछ छोटी-छोटी प्रश्नावलियाँ उदाहरणार्थ दी जा रही हैं जिनके प्रश्नों को पढ़कर अध्यापक तथा विद्यार्थी यह जान सकेंगे कि प्रश्नावली तथा जाँच सूची व्यक्तित्व विशेषताओं की जानकारी दिलाने में किस प्रकार सहायक हैं।

जिस प्रश्नावली के उत्तर में "हाँ" की संख्या अधिक है उससे संबंधित क्षेत्र में विद्यार्थी की सफलता प्राप्ति की संभावना अधिक होगी।

हमारी अन्य योग्यताएँ

हमारी सब योग्यताएँ लेखन-पत्र-परीक्षणों द्वारा ही नहीं मापी जातीं। बहुत सी अन्य अभियोग्यताओं एवं कौशलों के विषय में दैनिक कार्यों तथा अवकाश के समय की जाने वाली क्रियाओं के द्वारा जाना जा सकता है। ऐसी अभियोग्यताओं और कौशलों में सृजनात्मक, प्रवर्तक, शारीरिक, हस्तकौशल, कलात्मक आदि से संबंधित क्रियाएँ होती हैं।

प्रायः इन योग्यताओं का आभास विद्यार्थी की बाल्यावस्था में ही हो जाता है। यदि माता-पिता शिक्षित होते हैं और उनकी आर्थिक स्थिति अच्छी होती है तो वे बच्चे की इन योग्यताओं के विकास के लिए प्रयत्न भी करते हैं। प्रायः देखा जाता है कि कुछ छात्रों में प्रारंभ से ही कविता लिखने, वाद्य बजाने अथवा संगीत की योग्यता होती है, कुछ चित्रकारी में भी कुशल होते हैं। कुछ में शारीरिक योग्यता अधिक होती है। वे स्कूल में खेल कूद में भाग लेना पसंद करते हैं। परंतु प्रायः इन प्राकृतिक योग्यताओं पर विशेष ध्यान नहीं दिया जाता क्योंकि माता-पिता तथा अध्यापक शैक्षिक उपलब्धि को ही अधिक महत्व देते हैं उनके अनुसार बच्चों को अपनी शारीरिक शक्ति और मानसिक योग्यता का सबसे अधिक प्रयोग विषय ज्ञान को बढ़ाने के लिए ही करना चाहिए। इसलिए वे उन्हें उत्तम शैक्षिक उपलब्धि के लिए ही प्रेरित करते रहते हैं परंतु अर्जित योग्यताओं में उन्हें प्रयत्न करने पर भी उतनी सफलता नहीं मिल पाती जितनी कि जन्मजात प्राकृतिक योग्यताओं के विकास द्वारा मिल सकती है।

सामान्य सृजनात्मक योग्यता

प्रत्येक व्यक्ति में जन्म से ही सृजनात्मक रूप से सोचने और चिंतन करने की योग्यता होती है। परंतु इनका पूर्ण विकास कुछ ही व्यक्तियों में हो पाता है। जिस स्कूल या घर के वातावरण में बच्चों को स्वयं कार्य करने, अपने विचार व्यक्त करने, निर्णय लेने, अपनी इच्छा के कार्य कलापों में भाग लेने की कुछ सीमा तक स्वतंत्रता और सुविधा होती है उनमें सृजनात्मक योग्यता का विकास संभव है। ऐसे ही व्यक्ति अपने नए विचारों द्वारा कला, संगीत, लेखन, नाटक अथवा औद्योगिक क्षेत्रों में नवीनता प्रदान करते हैं, नए अविष्कार कर सकते हैं और सामाजिक, वैज्ञानिक तथा साहित्यक उन्नति में सहायक होते हैं। उदाहरण स्वरूप नीचे कुछ प्रश्न दिए जा रहे हैं। जिनके आधार पर विद्यार्थियों में सृजनात्मक योग्यता के विषय में अनुमान लगाया जा सकता है। अध्यापक विद्यार्थियों को इन प्रश्नों के उत्तर

"हाँ" या 'न'' में देने के लिए निर्देश दें।

1. का तुम्हें बहुत विषयों पर नए विचार अते हैं?
2. क्य तुम नई कहानी, लेख, नाटक, कविता, राग या चित्र का निर्माण अपने आप कर लेते हो?
3. क्या तुम शब्दों, विचारों, वस्तुओं को नए अनोखे रूप में प्रस्तुत कर सकते हो?
4. क्या तुम विभिन्न प्रचलित विधियों तथा प्रणालियों में दोष तथा त्रुटियाँ निकाल कर उनके लिए नए एवं अच्छे सुझाव दे सकते हो?
5. क्या तुम अपने कार्य को औरों से हटकर नए ढंग से करने का प्रयत्न करते हो?
6. क्या तुम नए परिवर्तनों से घबरा जाते हो?
7. क्या तुम अपने काम को बिना किसी की सहायता के अपने ढंग से करना पसंद करते हो?

इन्हीं प्रश्नों के उत्तर यदि अध्यापक स्वयं किसी विद्यार्थी के विषय में दे तो ये प्रश्न इस प्रकार पूछे जा सकते हैं :

1. विद्यार्थी को बहुत विषयों पर नए विचार आना।
2. नई कहानी, लेख, नाटक, कविता, राग या चित्र का निर्माण अपने आप कर पाना।
3. शब्दों, विचारों, वस्तुओं को नए व अनोखे रूप में प्रस्तुत कर पाना।
4. विभिन्न प्रचलित विधियों तथा प्रणालियों में दोष तथा त्रुटियाँ निकालकर उनके लिए नए एवं अच्छे सुझाव देना।
5. अपने कार्य को औरों से हटकर नए ढंग से करने का प्रयत्न करना।
6. नए परिवर्तनों से घबरा जाना।
7. अपने काम को बिना किसी सहायता के अपने ढंग से करना पसंद करना।

कला में योग्यता

इसी प्रकार कला के क्षेत्र में अभियोग्यता को जानने के लिए उदाहरण के तौर पर प्रश्न दिए गए हैं जिनके उत्तर विद्यार्थी "हाँ" या "नहीं" में दें।

1. क्या तुम ड्राइंग या पेन्टिंग करना पसंद करते हो?
2. क्या तुम ऐसी पद्धति या संरचना का प्रयोग करते हो जो अन्य विद्यार्थियों से भिन्न होती है।
3. क्या तुम्हारी रुचि किसी अन्य कला जैसे—संगीत, नाटक, वाद्य बजाने में भी है?
4. क्या तुम विचारों, भावनाओं को कला के द्वारा व्यक्त कर पाते हो?
5. क्या तुम्हें अन्य व्यक्तियों द्वारा रचित कलात्मक रचनाओं में रुचि है?
6. क्या तुम अपना अधिकतर खाली समय अन्य व्यक्तियों द्वारा रचित कलात्मक रचनाओं के विषय में जानने तथा उनके गुण दोषों की विवेचना करने में व्यतीत करते हो?
7. क्या तुम ऐसे चित्र, डिजाइन, नक्काशी की गई वस्तुएँ बनाते हो जिनकी दूसरे कलाकार भी प्रशंसा करते हैं?

अध्यापक स्वयं किसी विद्यार्थी के लिए इन्हीं प्रश्नों के उत्तर यदि देना चाहें तो इन प्रश्नों को वे उसी रूप में परिवर्तित करें जिस प्रकार ऊपर (सृजनात्मक योग्यता के अंतर्गत) दी गई प्रश्नावली में किया गया है।

लेखन-कार्य में योग्यता

1. क्या तुम किसी विचार के आधार पर आरंभ से लेकर अंत तक कहानी की रचना कर सकते हो?
2. क्या तुम किसी व्यक्ति के गुणों और विशेषताओं को कम शब्दों में मनोरंजक ढंग से प्रस्तुत कर सकते हो?
3. क्या तुम्हारे द्वारा लिखित कहानी, लेख, नाटक या कविताएँ आदि अन्य व्यक्तियों द्वारा पसंद की जाती हैं?
4. क्या तुम किसी समस्या को वाद-विवाद, निबंध, संपादकीय लेख या भाषण के रूप में प्रस्तुत कर सकते हो?
5. क्या तुम किसी अधूरी कहानी, कविता या लेख को रोचक ढंग से पूरा कर सकते हो?
6. क्या तुम किसी ऐतिहासिक स्थान तथा प्राकृतिक दृश्य का वर्णन सुंदर तथा सजीव शब्दों में कर सकते हो?

नाटकीय योग्यता

1. क्या तुम अभिनय की मुद्रा या भावावस्था को दिखाने के लिए अपनी आवाज में उपयुक्त उतार-चढ़ाव ला सकते हो?
2. क्या तुम किसी भी प्रकार के व्यक्तित्व को अभिनय द्वारा व्यक्त कर सकते हो?
3. क्या तुम श्रोताओं को अपने अभिनय द्वारा प्रभावित कर लेते हो?
4. क्या वे तुम्हारी प्रशंसा और अनुमोदन करते हैं?
5. क्या तुम मुखाकृति, संकेतों और शारीरिक गतिविधियों द्वारा विचारों को व्यक्त कर लेते हो?
6. क्या तुम भावों एवं अनुभवों को नाटकीय ढंग से प्रस्तुत कर सकते हो?
7. क्या तुम अन्य व्यक्तियों की भाव भंगिमाओं की अच्छी तरह नकल उतार लेते हो?
8. क्या तुम नाटक के निर्णायकों की प्रशंसा पाने में सफल हो जाते हो?

संगीत योग्यता

1. क्या तुम्हारी आवाज असाधारण रूप से अच्छी है? क्या अन्य व्यक्ति तुम्हें प्रायः गाने के लिए कहते है एवं क्या वे तुम्हारा गाना सुनकर आनंदित हो जाते हैं?
2. क्या तुम किसी संगीत समूह में अपनी कला का निष्पादन करते हो?
3. क्या तुम कण्ठसंगीत या वाद्यसंगीत के निष्पादन में अत्यधिक रुचि रखते हो?
4. क्या तुम अपनी अभियोग्यता में कुशलता प्राप्त करने के लिए प्रशिक्षण प्राप्त करने के इच्छुक हो?
5. क्या किसी योग्य अथवा समर्थ निर्णायक के विचार में तुंम में अधिकांश व्यक्तियों की अपेक्षा अधिक संगीत अभियोग्यता है?

शारीरिक कौशल

1. क्या तुम यह अनुभव करते हो कि तुममें शारीरिक शक्ति बहुत अधिक है? क्या तुम्हें परिश्रम के कार्य करने में अधिक प्रसन्नता होती है?
2. क्या तुम्हें प्रतिस्पर्धात्मक खेलकूद के कार्यक्रमों में भाग लेने में आनंद मिलता है?

3. क्या तुम्हें स्कूल में खेलकूद कार्यक्रमों में सदैव सफलता मिलती है?
4. क्या तुम्हें लंबी रोमांचक पद-यात्रा (हाइकिंग), शिविर समारोह तथा मैदान के खेल प्रिय हैं?
5. क्या तुम्हारा शारीरिक सामंजस्य अति अच्छा है?
6. क्या तुम अपना अधिकांश खाली समय हॉकी, बास्केटबॉल, टैनिस, फुटबाल, क्रिकेट आदि खेलों के खेलने में व्यतीत करते हो?

हस्त कौशल

विभिन्न कार्यों को करते समय बाँहों, हाथों तथा उँगलियों की गति में समन्वय का होना आवश्यक है। हस्त कौशल, कारखानों में पैकिंग, फिटिंग, जैसे व्यवसायों के लिए आवश्यक है। शल्य विशेषज्ञ (सर्जन), मोटर मैकेनिक, यंत्र मैकेनिक, टाइपिस्ट आदि, इस कौशल के बिना अपने कार्य में सफलता नहीं प्राप्त कर सकते। इसके अतिरिक्त कला संबंधी व्यवसायों जैसे शिल्प कला, बुनाई, सिलाई, गुड़िया बनाना, मूर्ति कला आदि में हस्त कौशल विशेष रूप से सहायक है। यद्यपि इन कार्यों में अन्य कई योग्यताओं का होना भी आवयक है परंतु हस्त कौशल तो आवयक है ही। नीचे दी गई प्रश्नावली में इससे संबंधित कुछ प्रश्न हैं जिनका उत्तर विद्यार्थी "हाँ" या "नहीं" में दें।

1. क्या तुम किसी वस्तु अथवा जटिल यंत्र के विभिन्न भागों को अच्छी तरह संग्रहित कर लेते हो?
2. क्या तुम किसी ऐसी शिल्प कला में कुशल हो जिसमें तुम्हें सूक्ष्म भागों तथा संवेदनशील उपकरणों से कार्य करना पड़े?
3. क्या तुम्हें ऐसी मशीनों जैसे चलचित्र प्रोजेक्टरों आदि को चलाने में कुशलता प्राप्त है?
4. क्या तुम यांत्रिक उपकरणों जैसे मोटर आदि को अच्छी तरह चला सकते हो?
5. क्या तुम्हें सूक्ष्म भागों वाली वस्तुओं को संग्रहित करना अच्छा लगता है जैसे रेडियो, वायुयान अथवा जहाज के मॉडल आदि?
6. क्या तुम्हें ऐसी वस्तुओं का बनाना अथवा निर्माण करना अच्छा लगता है जिसमें तुम्हें परिश्रम करना पड़े?
7. क्या तुम्हें घर की सजावट की वस्तुएँ बनाना अच्छा लगता है?
8. क्या तुम्हें सिलाई कढ़ाई तथा बुनाई के काम में रुचि है? क्या तुम्हारे द्वारा किए गए इन कामों की दूसरों द्वारा प्रशंसा की जाती है?

योग्यताओं के अन्य प्रमाण तथा विकास

माता-पिता तथा अध्यापक छोटे बच्चों के निरन्तर सम्पर्क में रहने के कारण उनकी योग्यताओं और व्यक्तित्व-विशेषकों के विषय में काफी जानकारी दे सकते हैं। विशेषकर माता-पिता निकट प्रेक्षण के कारण काफी सीमा तक यह जानते हैं कि किस कार्य को बालक कठिनाई से और किसे आसानी से और अच्छी तरह कर सकता है।

जरा सोचिए

इस अध्याय में दी गई प्रश्नावलियों के आधार पर जानने का प्रयत्न कीजिए कि आप में कौन-कौन सी अन्य योग्यताएँ विद्यमान हैं।

इसलिए बालक में विद्यमान किसी भी विशेष योग्यता की वे आसानी से पहचान कर सकते हैं। सहपाठी तथा मित्र भी छात्र को उसकी सफलताओं और निर्बलताओं का आभास कराते हैं।

अध्यापक स्वयं भी किसी भी छात्र की योग्यता और गुणों पर प्रकाश डाल सकते हैं। वे बच्चों में इन योग्यताओं की पहचान के लिए इस अध्याय के पहले पृष्ठों में दी गई प्रश्नावलियों के प्रश्नों का प्रयोग करें। जिस बच्चे में भी इन योग्यताओं में से किसी भी योग्यता के लक्षण दिखाई दें तो इस प्रकार की प्रश्नावली के आधार पर अध्यापक अपने अनुमान की पुष्टि कर सकते हैं। विद्यालय में समय-समय पर होने वाली परीक्षाओं के प्राप्तांक तथा अन्य क्रियाओं में विद्यार्थियों की उपलब्धियाँ भी उन्हें इस विषय में महत्वपूर्ण सूचनाएँ दे सकती हैं।

प्रत्येक अभिभावक, अध्यापक एवं प्रशासक का कर्तव्य है कि वे बच्चों को निकट से जानने और उनका अध्ययन करने का प्रयास करें। उनकी योग्यताओं और विशेष गुणों की पहचान करें और घर और स्कूल में उपलब्ध संसाधनों एवं सुविधाओं का उनके व्यक्तित्व-विकास के लिए प्रयोग करें। सही अर्थ में शिक्षा का उद्देश्य तभी पूरा होगा जब भी हम विद्यार्थियों के व्यक्तित्व के बौद्धिक पक्ष के विकास के साथ-साथ अन्य पक्षों के विकास की ओर भी ध्यान दें। कक्षा में तथा कक्षा के बाहर होने वाले शैक्षिक, सामाजिक, सांस्कृतिक तथा खेलकूद संबंधी कार्यक्रम इस प्रकार आयोजित किए जाएँ ताकि हर एक बच्चे को किसी न किसी क्रिया में भाग लेने का अवसर मिले इससे उनमें आत्मज्ञान तो उत्पन्न होगा ही, प्रंशसा और प्रोत्साहन मिलने पर वे अपनी प्रतिभा को और भी आगे बढ़ाने के लिए प्रोत्साहित होंगे तथा अपनी कमियों को दूर करने का प्रयास करेंगे। इन प्रयासों के फलस्वरूप उनमें आत्मविश्वास, आपसी मेल जोल, सहयोग, उत्तरदायित्व, आत्मनिर्भरता आदि विशेषताओं का भी प्रादुर्भाव होगा।

संचयीवृत

छात्र से संबंधित विभिन्न सूत्रों से एकत्र किया गया सूचनाओं और तथ्यों का एक संक्षिप्त विवरण "संचयीवृत" कहलाता है। छात्र के जीवन के सभी पहलुओं से संबंधित सूचनाएँ समय-समय पर एकत्र की जाती हैं। एक लंबी अवधि तक एकत्र की गई इस प्रकार की सूचनाओं के आधार पर तैयार किया गया संचयीवृत, छात्र की योग्यताओं, गुणों और अन्य विशेषताओं के विकास संबंधी उतार चढ़ाव को दिखाता है।

छात्र जीवन के कई पक्षों से संबंधित व्यक्तिगत, पारिवारिक, सामाजिक, आर्थिक, शैक्षिक जैसी सूचनाएँ यद्यपि विद्यालय में होती हैं परंतु इसे एक सूत्र में बाँधने का प्रयास शायद कभी नहीं किया जाता। संचयीवृत बनाने के लिए महत्वपूर्ण तथ्यों का विश्लेषण कर उन्हें एक स्थान पर संयोजित किया जाता है जिससे कि छात्र की कठिनाइयों और आवश्यकताओं को, उसके जीवन के सभी पक्षों को ध्यान में रखते हुए सही परिप्रेक्ष में समझा जा सके। अध्यापक इस सूचना का प्रयोग विद्यार्थी की समस्याओं को समझने तथा अपने अध्ययन को उसकी आवश्यकताओं के अनुरूप बनाने के लिए कर सकते हैं। छात्र द्वारा स्वयं को समझने के लिए भी यह अत्यंत सहायक सिद्ध होगा। वही संचयीवृत उत्तम समझा जाता है जो वास्तविक घटनाओं पर आधारित हो और जिसमें परिवर्तन होती हुई अवस्थाओं का वर्णन हो। इसके लिए विद्यार्थियों का वास्तविक क्रियाएँ करते हुए प्रेक्षण किया जाना चाहिए और उसके आधार पर उनके कार्यों का संक्षिप्त वर्णन और उनकी विशेष उपलब्धियों की चर्चाएँ होनी चाहिए।

संचयीवृत में निम्नलिखित शीर्षकों के अंतर्गत सूचना एकत्र की जाती है :

व्यक्तिगत सूचना	नाम, जन्मतिथि, जन्मस्थान, लिंग, पता, माता-पिता का निवास स्थान, जाति, धर्म आदि।
पारिवारिक पृष्ठभूमि	माता-पिता का नाम, आयु, शिक्षा, व्यवसाय, छात्र के साथ रहने वाले अन्य व्यक्ति, घरेलू भाषा, भाई बहनों की संख्या व उनकी शिक्षा व व्यवसाय तथा घर की मासिक आय आदि।
स्वास्थ्य संबंधी सूचना	शारीरिक विशेषताएँ, लम्बाई, वजन, कोई बीमारी या रोग अथवा अन्य कोई अक्षमता। स्वास्थ्य संबंधी आदतों का होना, कार्य करने की शक्ति आदि।
शिक्षा	उन विद्यालयों के नाम जहाँ छात्र ने शिक्षा पाई हो। विभिन्न परीक्षाओं तथा विषयों में प्राप्तांक, असफलता अथवा विशेष योग्यता पर विचार, कक्षा में स्थान, मानसिक तत्परता, समस्या का हल निकालने की योग्यता, काम करने की आदतें, सीखने की रीति, हस्तकौशल के कार्य, रचनात्मक कलाओं में उपलब्धि। इन सूचनाओं से छात्र के सीखने की प्रक्रिया को समझने में सुविधा होती है और साथ ही उसकी पढ़ाई में रुचि, इच्छाएँ और अध्ययन के क्षेत्र में संभावित सफलता का भी आभास मिलता है। स्कूल में अनुपस्थिति तथा उसके कारण।
मनोवैज्ञानिक परीक्षणों द्वारा व्यक्तित्व निर्धारण	मानसिक योग्यता का स्तर, अन्य विशेष योग्यताएँ, अभियोग्यताएँ, रुचियाँ तथा अन्य व्यक्तित्व विशेषताओं से संबंधित सूचना।
व्यावहारिक विधियों द्वारा व्यक्तित्व निर्धारण	प्रेक्षण द्वारा प्राप्त वृतांत लेख, निर्धारण मापनी, आत्मकथा और छात्र तथा माता-पिता के साथ साक्षात्कार के द्वारा प्राप्त तथ्य।
सहपाठ्य तथा अवकाश क्रियाएँ, विशेष प्रतिभाएँ पारितोषिक आदि।	सहपाठ्य क्रिया कलापों तथा घर में अवकाश के समय की जाने वाली क्रियाओं का विवरण। विशेष कार्यों के लिए मिले हुए पुरस्कार, पारितोषिक आदि।
सामाजिक संबंध, शैक्षिक तथा व्यावसायिक योजना	कक्षा में तथा बाहर मित्रों एवं अन्य समुदायों में सामाजिक संबंध स्थापित करने की योग्यता, बालक तथा माता-पिता द्वारा बनाई गई व्यवसाय संबंधी योजना।
सांवेगिक समायोजन	व्यक्तिगत समायोजन संबंधी सूचना, घर तथा कक्षा में व्यवहार तथा आदतें, जैसे—चुप रहना, घबरा जाना, शर्माना, लड़ना-झगड़ना, रो पड़ना आदि। ऐसे सभी तथ्य जो व्यक्तिगत और पारिवारिक जीवन से गंभीर संबंध रखते हों उन्हें गुप्त रखा जाय।

जरा सोचिए

छात्रों के व्यक्तित्व के विभिन्न पहलुओं से संबंधित कौन-कौन सी सूचना आपके विद्यालय में उपलब्ध होती है? इस सूचना को विधिवत एक स्थान पर एकत्र करने के लिए आप कौन-सी विधि का प्रयोग करेंगे?

संचयीवृत का उपयोग

आत्मपरीक्षण तथा आत्मनिर्देशन इसके मुख्य उद्देश्य हैं। जिस आयु के बच्चों के लिए इनके उपयोग की यहाँ चर्चा की जा रही है, वहाँ इस तरह के अभिलेख से अध्यापक तथा माता-पिता को बच्चे के स्वास्थ्य, संवेग, शिक्षा, सामाजिक समायोजन संबंधी कठिनाइयों का पता चलता है और उनके निदान के उचित उपायों और विकास की व्यवस्था की जा सकती है।

स्कूल बदलने की स्थिति में संचयीवृत को दूसरे स्कूल में भेजकर नई परिस्थिति में छात्र के समायोजन में सहायता की जा सकती है।

माता-पिता से बच्चे के विषय में विचार-विमर्श करने के लिए बच्चे की शिक्षा में उनके सहयोग के लिए इस अभिलेख से बहुत सहायता मिलती है।

विद्यालय में संचयीवृत की प्रणाली प्रारंभ करने का सबसे बड़ा लाभ यह है कि अध्यापक को छात्र की ओर व्यक्तिगत रूप से ध्यान देना होगा। अध्यापक के लिए विद्यार्थी को अच्छी तरह जाने बिना इस तरह के अभिलेख को पूरा करना कठिन है अतः उन्हें निश्चय ही बच्चों में व्यक्तिगत रूप से रुचि लेनी होगी और तभी शिक्षा का उद्देश्य भी पूरा हो सकेगा।

सारांश–अध्याय 5

बुद्धि के स्वरूप के विषय में क्या-क्या विचारधाराएँ हैं?	प्रारंभ में बुद्धि को एक सामान्य एकक योग्यता के रूप में माना गया परंतु अब यह माना जाने लगा है कि इसमें अनेक तत्व सम्मिलित हैं। बुद्धि संरचना सिद्धांत के अनुसार बुद्धि को 120 से भी अधिक तत्वों में विभाजित किया गया है।
कुछ प्राथमिक या मूल मानसिक योग्यताएँ कौन-सी हैं?	सात प्राथमिक योग्यताओं का उल्लेख अधिकांश मनोवैज्ञानिकों ने किया है। जोकि शाब्दिक, शब्दप्रवाह, सांख्यिक, दैशिक, तार्किक, यांत्रिक व प्रत्यक्ष ज्ञान हैं। छात्रों में इन योग्यताओं की पहचान शैक्षिक तथा अन्य क्रियाकलापों में उपलब्धि के आधार पर की जा सकती है।
व्यक्तित्व-विशेषताओं की पहचान के लिए प्रमुख व्यावहारिक विधियाँ कौन-कौन-सी हैं?	थोड़े से प्रशिक्षण के बाद अध्यापक प्रेक्षण, प्रश्नावली तथा साक्षात्कार आदि विधियों का प्रयोग सरलता से कर सकते हैं।
संचयीवृत्त किसे कहते हैं?	छात्र के व्यक्तित्व के विभिन्न पहलुओं से संबंधित एक स्थान पर एकत्र की गई सूचना संचयीवृत्त कहलाती है।

अभ्यास

1. छात्रों की कुछ प्रमुख योग्यताओं की सूची बनाइए, प्रत्येक योग्यता के साथ संबंधित पाठ्यविषयों एवं अन्य क्रिया कलापों को भी लिखिए।
2. बच्चों में व्यक्तिगत विशेषताओं के अध्ययन के लिए प्रेक्षण को अच्छी विधि क्यों माना गया है?
3. कक्षा में आप बच्चे के किस प्रकार के व्यवहारों का अध्ययन कर सकते हैं?
4. पाँच ऐसे प्रश्न लिखिए जिससे किसी बच्चे में लेखन-कार्य अथवा नाटकीय योग्यता का पता लगता हो।
5. किन-किन पहलुओं से संबंधित सूचना बच्चे के व्यक्तित्व के विषय में जानकारी देने में सहायक होती है?

6

कुछ प्रश्न

- विद्यालय की शिक्षा का, बाद के व्यावसायिक जीवन से क्या संबंध है?
- विभिन्न योग्यताएँ, पाठ्यविषयों एवं व्यवसायों से किस प्रकार संबंधित हैं?

उद्देश्य

इस लेख को पढ़कर आप जान सकेंगे कि :

- विद्यालय में पढ़ाए जाने वाले विषय व्यावसायिक जगत के विभिन्न व्यवसायों से संबंधित हैं।
- ग्यारहवीं कक्षा में विद्यार्थियों द्वारा विषयों का चुनाव बाद में अपनाए जाने वाले व्यवसायिक क्षेत्र को ध्यान में रखते हुए किया जाना चाहिए।
- एक योग्यता के होने पर विद्यार्थी अनेक विषय-समूहों और अनेक संबंधित व्यवसायों के उपयुक्त हो सकता है।

शिक्षा एवं व्यवसाय से योग्यताओं का संबंध

नवीं-दसवीं कक्षा तक पहुँचते-पहुँचते विद्यार्थी के मन में प्रायः यह विचार उठने लगते हैं कि मेरा जीवन कैसा होगा? मैं जीवन में क्या व्यवसाय करूँगा? मैं एक सिनेमा स्टार बनूँगा या कोई विख्यात संगीतज्ञ? मुझे ग्यारहवीं कक्षा में कौन-से विषय लेकर पढ़ना चाहिए और बारहवीं कक्षा के बाद किस प्रकार का प्रशिक्षण प्राप्त करना चाहिए? आदि। निश्चय ही योग्यताएँ पाठ्य विषयों में सफलता, शिक्षा के स्तर और व्यवसाय में प्रवेश और उन्नति के लिए महत्वपूर्ण हैं जैसे कि एक वैज्ञानिक बनने के लिए शाब्दिक योग्यता, व सांख्यिक योग्यता के साथ-साथ विज्ञान विषयों में विश्वविद्यालय स्तर की शिक्षा प्रथमश्रेणी में प्राप्त की जानी चाहिए तथा एक सफल सिनेमा स्टार बनने के लिए सुंदर, प्रभावशाली व्यक्तित्व, उपयुक्त वाणी के साथ-साथ विभिन्न प्रकार की मुद्रा और भाव-भंगिमाओं को प्रदर्शित कर पाने से संबंधित गुण होने आवश्यक हैं। जिस व्यक्ति में भी ये योग्यताएँ हैं वह एक वैज्ञानिक बनकर अथवा लिपिक बनकर अधिक सफलता और संतोष प्राप्त नहीं कर पाएगा। प्रत्येक विद्यार्थी को अपनी सबल योग्यताओं का पूर्ण रूप से लाभ उठाना चाहिए। प्रायः व्यक्ति उतने ही सफल और सुखी होते हैं जितना वे अपने आप को "अभिव्यक्त" कर पाते हैं। अर्थात जब वे अपनी अभिक्षमता, कौशलों और योग्यताओं का अधिकतम संभाव्य उपयोग कर सकें।

विद्यार्थी का "संचयीवृत" उसे अपनी सबल योग्यताओं की जानकारी दिलाने में सहायक होता है। यदि किसी विद्यार्थी में हस्तकौशल तथा शारीरिक योग्यता कक्षा के अन्य विद्यार्थियों की तुलना में उच्च स्तर की है परंतु दैशिक और यांत्रिक पचास प्रतिशत विद्यार्थियों से कम स्तर की है तो उसके लिए डिग्री स्तर पर इंजीनियरिंग शिक्षा में जाना एक भूल होगी। संभवतः उसके लिए डिप्लोमा या सर्टिफिकेट स्तर का प्रशिक्षण पाना तथा धातुचादर कारीगर, नक्शानवीस या मशीनिस्ट जैसे कार्यों में जाना अधिक लाभप्रद हो सकता है।

निर्णय इतना सुगम नहीं

किसी भी कार्य में सफलता केवल मानसिक योग्यता, कौशल और अभियोग्यता पर ही निर्भर नहीं होती वरन सफलता प्राप्ति के लिए अन्य कारकों का भी बहुत महत्व होता है। विद्यार्थी की रुचियाँ, शिक्षा एवं प्रशिक्षण के अवसर, परिश्रम एवं लगन से कार्य करने की इच्छा इत्यादि सबका कार्य की सफलता में अपना महत्व है। एक वकील जब अपने मुकद्दमे को प्रस्तुत करता है तो उसे अपनी तार्किक योग्यता, विश्वास कराने की सामर्थ्य, वक्तव्यों को कम से कम शब्दों व अच्छी भाषा में प्रस्तुत करने का कौशल और अभिनय योग्यता की भी आवयकता होती है। मुकद्दमे की अच्छी तैयारी के लिए निरंतर परिश्रम, उत्साह और लगन जैसी विशेषताएँ भी होनी आवश्यक हैं। यह भी सत्य है कि कोई भी मनोवैज्ञानिक किसी भी कार्य में सफल होने के लिए योग्यताओं का शत प्रतिशत ठीक विवरण नहीं प्रस्तुत कर पाएगा। यदि वकील

को क़ानूनी अनुसंधान करना हो या कानूनी टिप्पणियाँ लिखने का कार्य करना हो, तो उसमें वे सब योग्यताएँ होनी आवश्यक नहीं हैं जो हमने ऊपर वर्णित की हैं। फिर भी अध्यापकों के लिए पाठ्य-विषयों, शिक्षा स्तर और व्यवसाय संबंधों को जानना लाभप्रद है ताकि वे विद्यार्थियों में पाठ्यविषयों एवं व्यवसाय संबंधों के बारे में कुछ जागरूकता उत्पन्न कर पाएँ।

जैसाकि हम पहले कह चुके हैं यद्यपि विद्यार्थियों को इस स्तर पर पाठ्यविषय संबंधी निर्णय नहीं लेने पड़ते परंतु पाठ्यविषयों और व्यावसायिक संबंधों की जानकारी से विद्यार्थी विभिन्न पाठ्यविषयों में अपनी उपलब्धि में सुधार लाने के लिए अधिक प्रेरित होंगे विशेषकर अपनी क्षमता व पसंद के पाठ्यविषयों में। दसवीं कक्षा आने तक वे पाठ्यविषयों से संबंधित व्यवसायों में और विस्तृत जानकारी प्राप्त करने के लिए प्रयत्न भी कर सकते हैं।

इस लेख में दी गई तालिका योग्यताओं, प्रतिभाओं और कौशलों के विभिन्न व्यावसायिक क्षेत्रों से संबंध को प्रदर्शित करती है। इस तालिका से यह निष्कर्ष नहीं निकाला जा सकता कि किसी विद्यार्थी में किसी एक योग्यता या प्रतिभा के होने पर वह उससे संबंधित पाठ्यक्रम अथवा व्यवसाय में अवश्य सफल होगा अथवा किसी पाठ्यक्रम अथवा व्यवसाय में सफल होने के लिए एक ही योग्यता आवश्यक है। इस तालिका से पता चलेगा कि कौन सी योग्यता संबंधित पाठ्यक्रम और व्यवसाय में सफलता के लिए अधिक आवश्यक है विशेषकर सृजनात्मक योग्यता के लिए यह कहना उचित होगा कि यद्यपि हर व्यवसाय में सृजनात्मकता को प्रदर्शित करने की संभावना है परन्तु हमने इस योग्यता के समक्ष उन्हीं व्यवसायों का उल्लेख किया है जिनमें नए विचारों, शब्दों, भावनाओं का प्रयोग एवं वस्तुओं को नए रूप में प्रस्तुत कर पाना कार्य की माँग है। तालिका में प्रायः सभी व्यवसायों के लिए एक से अधिक योग्यता का उल्लेख है। यहाँ कुछ प्रमुख पाठ्यक्रमों (सामान्य तथा वोकेशनल), व्यावसायिक क्षेत्रों तथा उनसे संबंधित योग्यताओं का एक संक्षिप्त विवरण दिया गया है। इस जानकारी से शिक्षक विद्यार्थियों में व्यावसायिक तत्परता लाने में सहायक हो सकेंगे।

शाब्दिक योग्यता

शब्दों द्वारा व्यक्त करने एवं समझने की योग्यता

पाठ्यक्रम

सामान्य

हिन्दी, अंग्रेजी तथा अन्य भाषाएँ

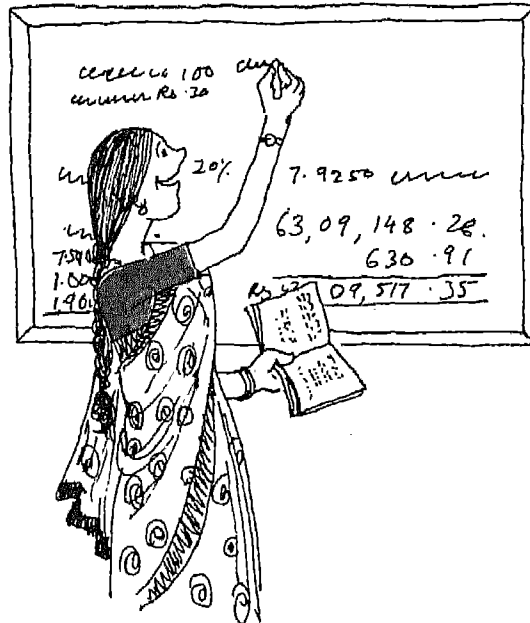
व्यवसाय

अध्यापक, वकील, लेखक, संपादक, विज्ञापनकर्ता, प्रचारक, पत्रकार, अनुवादक, दुभाषिया, परामर्शदाता, रिसेप्शनिस्ट आदि।

वोकेशनल

लाइब्रेरी साइंस

व्यवसाय

लाइब्रेरियन, अध्यापक, लेखक, अनुवादक आदि।

तार्किक योग्यता

(समस्याओं का तार्किक हल निकालने, योजना बनाने, तथ्यों का प्रयोग करने तथा निष्कर्ष निकालने की योग्यता)

गणित, विज्ञान, अर्थशास्त्र, राजनीति, मनोविज्ञान, नागरिक शास्त्र तथा इतिहास

व्यवसाय

डाक्टर, वैज्ञानिक, अर्थशास्त्रज्ञ, व्यापारी, वकील, न्यायाधीश, अनुसंधानकर्ता, प्रशासनिक एवं प्रबंधक सेवाओं में ऑफिसर, राजनीतिज्ञ, इतिहासकार, पुरातत्ववेत्ता, मानवविज्ञानी, संग्रहपाल, समाजशास्त्री, मनोवैज्ञानिक, परामर्शदाता, तथा भ्रमण संबंधी व्यवसाय।

सांख्यिक योग्यता

(अंकों से शीघ्रता एवं शुद्धता से कार्य करने तथा गणित के प्रश्नों को हल करने की योग्यता)

लेखाकार, बुककीपर, कोषाध्यक्ष, विक्रेता, लिपिक, कंप्यूटर-प्रोग्रामर, सिस्टम एनालिस्ट, कीपंच-ऑपरेटर, बीमा-अधिकारी, बीमा-एजेंट, बैंक-ऑफिसर, बैंक-क्लर्क, कैशियर आदि

व्यवसाय

गणितविद्, इंजीनियर, गणितशिक्षक, सांख्यिकीविद्, कंप्यूटर-प्रोग्रामर, सिस्टम एनालिस्ट आदि।

दैशिक योग्यता

(वस्तुओं को आकाश में दृष्टिगत करना, आकृति संबंधों को समझना तथा वस्तु को दो या तीन आयामों से देखने की क्षमता)

पाठ्यक्रम

सामान्य

रेखागणित, विज्ञान, मेकेनिकल ड्राइंग, भूगोल, एवं ड्राइंग

व्यवसाय

औद्योगिक इंजीनियर, वास्तुविद् (आर्किटेक्ट), नक्शानवीस, इंजीनियर, डाइमेकर, बढ़ई, धातुचादर-कारीगर, कमर्शियल कलाकार, आंतरिक सज्जाकार आदि।

वोकेशनल

वस्त्र डिजाइनिंग, ड्रेस डिजाइनिंग आदि।

व्यवसाय

वस्त्र डिजाइनर, फैशन डिजाइनर, आंतरिक सज्जाकार, ड्रेसडिजाइनिंग, मॉडलिंग, कमर्शियल कलाकार, पेंटर आदि।

यांत्रिक अर्थग्रहण

(यांत्रिक समयबोध, जटिल यांत्रिक उपकरणों को बनाने, चलाने तथा मरम्मत करने के कार्य को शीघ्रता से करने की योग्यता)

पाठ्यक्रम

सामान्य

विज्ञान, मेकेनिकल ड्राइंग, गणित

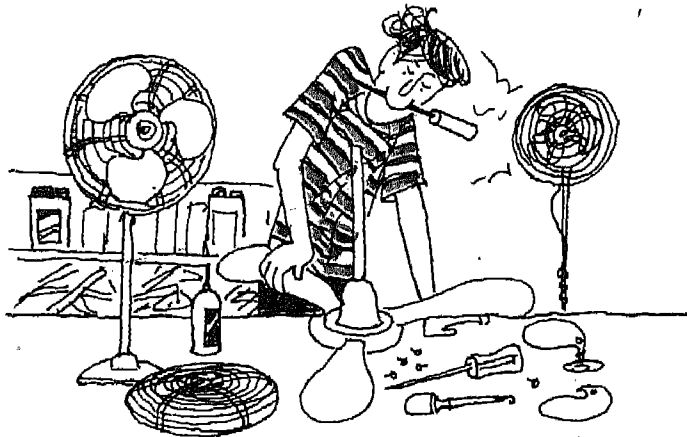
व्यवसाय

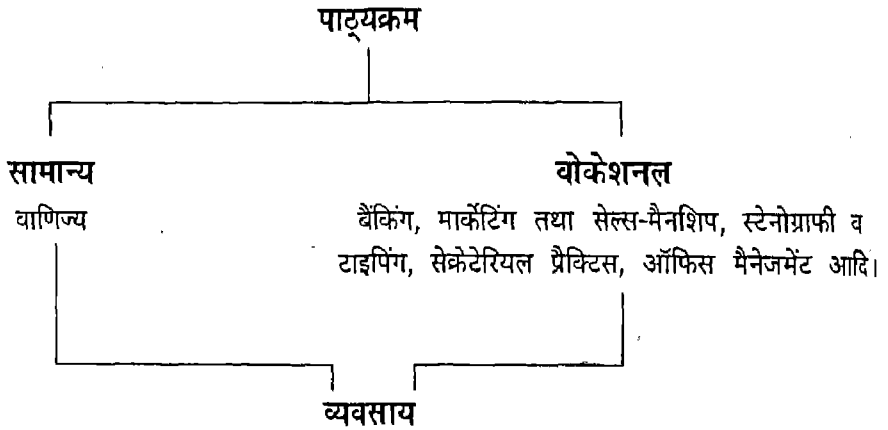
इंजीनियर, वास्तुविद्, वैज्ञानिक, अनुसंधानकर्ता, विमानचालक, अंतरिक्ष अनुसंधान एवं प्रौद्योगिकी संबंधी, परिवहन सेवा संबंधी तथा कारखानों में उत्पादन संबंधी व्यवसाय, कंप्यूटर इंजीनियर, प्रोग्रामर, एनालिस्ट आदि।

वोकेशनल

विद्युत प्रौद्योगिकी, इलैक्ट्रॉनिक टेक्नोलॉजी, वातानुकूलन तथा प्रशीतन प्रौद्योगिकी, मोटर प्रौद्योगिकी, सूचना एवं विरचना प्रौद्योगिकी, कम्प्यूटर अध्ययन आदि।

व्यवसाय

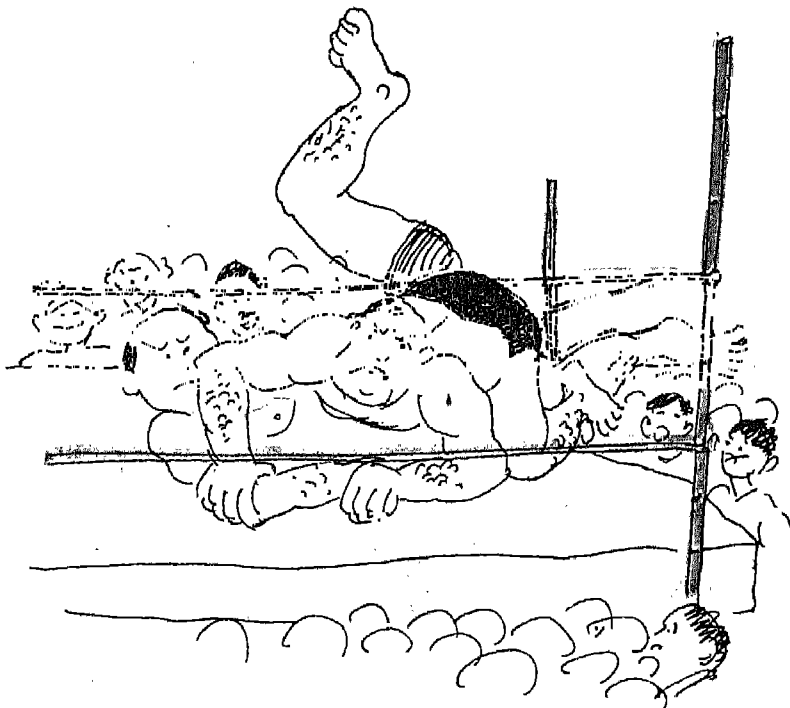
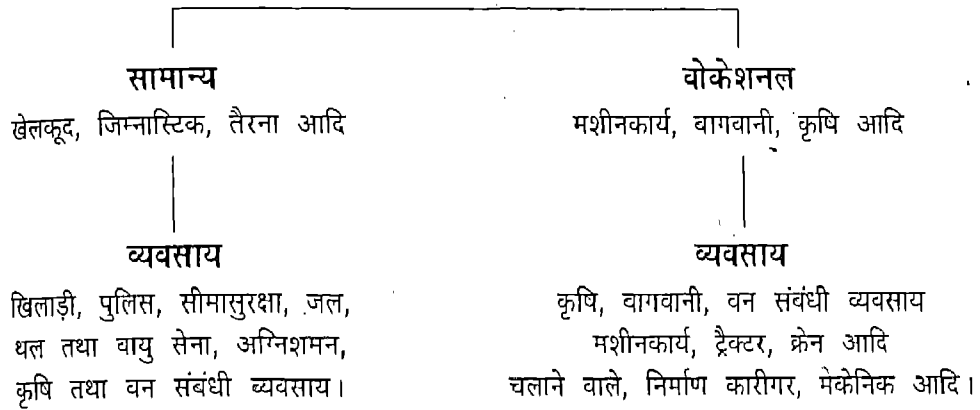
रेडियो एवं टी.वी. यांत्रिक, वातानुकूलन एवं प्रशीतन यांत्रिक, यंत्र मेकेनिक, मोटर मेकेनिक, कारखानों के उत्पादन कार्यों में लगे हुए मशीनिस्ट, फिटर, ग्राइंडर, बढ़ई, शॉपशिक्षक, तथा प्रोग्रामर, सिस्टम एनालिस्ट, की पंच आपरेटर आदि।

लिपिक गति एवं परिशुद्धता

(शुद्धता व शीघ्रता से शब्दों को देखने व लिखने, अभिलेख करने और अंकों तथा अक्षरों का क्रमानुसार विन्यास करने की योग्यता)

लिपिक, कैशियर, बुककीपर, फाइलक्लर्क, कोडिंग क्लर्क, स्टॉक-क्लर्क, स्टोरकीपर, प्रयोगशाला-प्राविधिक, सहायक सचिव, टाइपिस्ट, आशुलिपिक, एकाउन्टैंट आदि।

शारीरिक कौशल

(कार्य जिनमें शारीरिक शक्ति, सामंजस्य एवं सहनशक्ति की आवश्यकता हो)

पाठ्यक्रम

सामान्य	वोकेशनल
खेलकूद, जिम्नास्टिक, तैरना आदि	मशीनकार्य, बागवानी, कृषि आदि
व्यवसाय	**व्यवसाय**
खिलाड़ी, पुलिस, सीमासुरक्षा, जल, थल तथा वायु सेना, अग्निशमन, कृषि तथा वन संबंधी व्यवसाय।	कृषि, बागवानी, वन संबंधी व्यवसाय मशीनकार्य, ट्रैक्टर, क्रेन आदि चलाने वाले, निर्माण कारीगर, मेकेनिक आदि।

हस्त कौशल

(हाथों एवं उँगलियों में समन्वय, सामंजस्य तथा सूक्ष्मता से काम करने की क्षमता)

पाठ्यक्रम

सामान्य

मेकेनिकल ड्राइंग, पेन्टिंग, ड्राइंग, वाद्यसंगीत, सिलाई

व्यवसाय

चित्रकार, मूर्तिकार, वादक, शिल्पकार एवं अन्य कुशल कारीगर, बढ़ई, फिटर, दंतविशेषज्ञ, प्रयोगशाला प्राविधिक, कसीदाकार, बुनकर, सुनार, घड़ीसाज़ आदि।

वोकेशनल

ड्रेस डिज़ाइनिंग एण्ड मेकिंग, वस्त्र डिजाइनिंग, कटिंग एण्ड टेलरिंग, प्रयोगशाला कार्य, स्टेनोग्राफी, टाइपिंग आदि।

व्यवसाय

आशुलिपिक, ड्रेस डिजाइनर, टेलर, वायरमैन, इलैक्ट्रीशियन, बढ़ई, आशुलिपिक, टाइपिस्ट, प्रयोगशाला प्राविधिक आदि।

सृजनात्मक योग्यता

(नए और मौलिक विचारों को वस्तुओं, शब्दों, भावनाओं और कार्यों में प्रस्तुत करना)

पाठ्यक्रम

सामान्य

विज्ञान, कला, गणित, भाषा, संगीत, वाद्य संगीत, चित्रकला, नाट्यकला, समाजोपयोगी उत्पादक कार्य तथा कार्यानुभव के अंतर्गत की जाने वाली क्रियाएँ।

व्यवसाय

औद्योगिक डिजाइनर, अन्वेषक, विक्रेता, अनुसंधानकर्ता, चित्रकार, पेन्टर, लेखक, कवि गायक, संगीतरचयिता, वादक, अभिनेता, मूर्तिकार, शिल्पकार, फोटोग्राफर, कार्टूनिस्ट, फिल्मनिर्माता, निर्देशक, नर्तक, अभिनेता, बढ़ई, अध्यापक आदि।

कलात्मक

(विचारों एवं भावों को कलात्मक वस्तुओं द्वारा प्रकट करना)

पाठ्यक्रम

सामान्य

कला, गृहविज्ञान

वोकेशनल

आंतरिक सज्जा, वास्तुडिजाइन, ब्यूटीशियन, वस्त्र डिजाइनिंग, ड्रेस डिजाइनिंग, फैशन डिजाइनिंग, भोजन परिरक्षण एवं पोषण आदि।

व्यवसाय

औद्योगिक डिजाइनर, वस्त्र डिजाइनर, फर्नीचर-डिजाइनर, ड्रेस डिजाइनर, मॉडल, कमर्शियल कलाकार, चित्रकार, मूर्तिकार, नर्तक, नाटककार, अभिनेता, आंतरिक सज्जाकार, कला अध्यापक, होटल, रेस्तराँ तथा पयर्टक उद्योग के व्यवसाय, विमान परिचारिका, रिसेप्शनिस्ट आदि।

संगीत योग्यता

(विचारों और भावों को गाने के द्वारा तथा वाद्यों को बजाकर निष्पादन करने की योग्यता)

|

पाठ्यक्रम

संगीत तथा वाद्यों का प्रयोगात्मक एवं सैद्धान्तिक अध्ययन

|

व्यवसाय

संगीतकार, गायक, वाद्य निष्पादक, संगीत तथा वाद्य निर्देशक, संगीत शिक्षक, बैण्डलीडर आदि।

नाटकीय योग्यता

(वाणी से शारीरिक गतिविधियों तथा मुखाकृति द्वारा विचारों को व्यक्त करने की योग्यता)

|

पाठ्यक्रम

नाट्यकला

|

व्यवसाय

अभिनेता, निर्देशक, प्रहसन अभिनेता, नृत्यनिर्देशन आदि।

प्रवर्तक योग्यता

(किसी विचार अथवा क्रिया को ग्रहण कराने के लिए अन्य व्यक्तियों को विश्वस्त कराने की योग्यता)

पाठ्यक्रम

समाजशास्त्र, हिन्दी, अंग्रेजी तथा अन्य भाषाएँ।

व्यवसाय

विक्रेता, वकील, अध्यापक, राजनीतिज्ञ, लेखक, पत्रकार, विक्रय मैनेजर, जनसेवा अधिकारी, व्यापारी, पर्यटक गाइड आदि।

जरा सोचिए

जिस व्यवसाय में आप हैं या जिसे अपनाने की सोच रहे हैं उससे संबंधित पाठ्य-विषयों में स्कूली स्तर पर आपकी उपलब्धियाँ किस स्तर की थीं/हैं? आपके विचार से क्या आपमें अपने चुने हुए व्यवसाय से संबंधित आवश्यक योग्यताएँ हैं?

सारांश–अध्याय 6

योग्यताओं एवं पाठ्यविषयों के सम्बन्ध को जानना क्यों लाभप्रद है?	योग्यता पाठ्य-विषयों में सफल बना देती है। योग्यता की जानकारी होने पर विद्यार्थी को पाठ्यविषयों में उपलब्धि में सुधार लाने के लिए प्रेरित किया जा सकता है।
किसी पाठ्यक्रम अथवा व्यवसाय में सफल होने के लिए क्या एक ही योग्यता आवश्यक है?	विशेष योग्यता के साथ-साथ अन्य संबंधित योग्यताएँ, कार्य की इच्छा एवं लगन आदि गुण पाठ्यविषयों में सफलता पाने में सहायक हो सकते हैं।
क्या स्कूली कार्यों में उपलब्धि के आधार पर योग्यताओं की जानकारी की जा सकती है?	पाठ्यविषयों तथा अन्य क्रिया कलापों में समय-समय पर होने वाली उपलब्धियाँ विद्यार्थियों को उनकी योग्यताओं का ज्ञान कराने में सहायक हो सकती हैं।
पाठ्यविषयों एवं व्यावसायिक सम्बन्धों की जानकारी क्यों लाभप्रद है?	यह जानकारी स्कूली शिक्षा को और अधिक अर्थपूर्ण बना देती है। साथ ही जीवन-लक्ष्यों की प्राप्त में स्कूली शिक्षा का क्या महत्व है इस तथ्य को समझ पाते हैं।

अभ्यास

शिक्षकों के लिए

1. कार्य में सफलता क्या मानसिक योग्यताओं पर ही निर्भर है?
2. स्कूली स्तर पर क्या आपको अपनी योग्यताओं का थोड़ा-बहुत भी ज्ञान था? कक्षा में किस प्रकार की क्रियाएँ बच्चों की योग्यताओं की जानकारी में सहायक हो सकती हैं?

विद्यार्थियों के लिए

अपनी कुछ योग्यताओं तथा उनसे संबंधित पाठ्यविषयों एवं व्यवसायों की सूची बनाएँ।

कुछ प्रश्न

- रुचि क्या है?
- किसी कार्य को करने में रुचि का क्या महत्व है?
- विभिन्न क्रियाओं को किन-किन प्रमुख रुचि-क्षेत्रों में बाँटा जा सकता है?
- रुचियों के विकास में विद्यालय तथा शिक्षक की क्या भूमिका होती है?

उद्देश्य

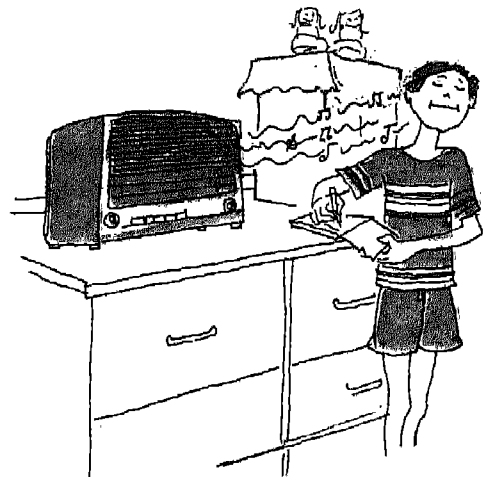
इस लेख को पढ़कर आप जान सकेंगे कि:

- बच्चों में रुचियों की पहचान एवं विकास किस प्रकार किया जाय।
- योग्यता व रुचि का क्या संबंध है।
- किसी भी क्रिया में सफलता के लिए एक अभिरुचि प्रतिदर्श की आवश्यकता होती है।
- रुचियों का विद्यालय के पाठ्य विषयों तथा अन्य कार्यों में सफलता की प्राप्ति से गहरा संबंध है।

रुचियों की पहचान एवं विकास

स्कूली विषयों में सफलता, सही व्यवसाय का चुनाव एवं सामंजस्य अथवा जीवन के किसी भी क्षेत्र में सफलता केवल योग्यताओं के ज्ञान पर ही निर्भर नहीं है अपितु व्यक्ति की रुचियाँ, व्यक्तित्व-विशेषताएँ, परिश्रम और लगन से कार्य करने की इच्छा आदि भी उतनी ही महत्वपूर्ण हैं जितनी कि योग्यताएँ।

जीवन में अप्रसन्न एवं असंतुष्ट व्यक्तियों में कुछ ऐसे हैं जो अपने कार्य को पसंद नहीं करते। आप शायद ऐसे लोगों से परिचित हों—एक अध्यापक जो इंजीनियर बनना चाहता था, एक बैंक आफिसर जो डाक्टर बनना चाहता था, एक लिपिक जो अध्यापक बनना चाहता था। ऐसे व्यक्ति अपने कार्य में अधिक सफल नहीं हो पाए क्योंकि वे अपने कार्य में इतनी रुचि नहीं लेते थे जो उन्हें व्यवसाय में उन्नति के लिए प्रेरित कर सके। अधिकांश व्यक्ति उन कार्यों को करना चाहते हैं जिनसे उन्हें सुख की प्राप्ति हो, जिनसे उनका मनबहलाव हो और जिसमें उनका ध्यान लग सके। अतः न केवल व्यवसाय में सफलता प्राप्ति के लिए अपितु जीवन में सुख और आनंद की प्राप्ति तथा अवकाश के समय के अच्छे उपयोग के लिए भी रुचियों की पहचान एवं विकास आवश्यक है।

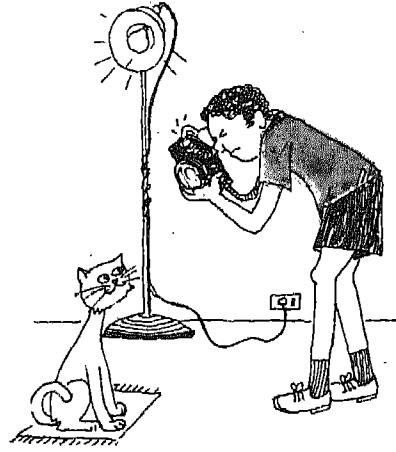
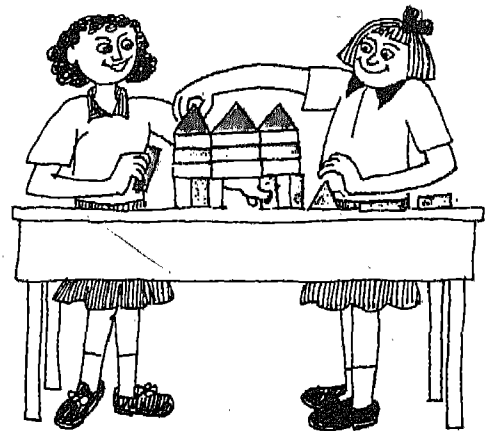
प्रारंभिक वर्षों में ही बच्चों को तरह-तरह के कार्यों और क्रियाओं के अनुभव प्रदान कर उनकी सहज रुझानों की पहचान की जा सकती है। जिन कार्यों में बच्चे को आनंद आता है यदि उसे उनके विकास के पर्याप्त अवसर प्रदान किए जाएँ तो विद्यालय बच्चे की इस व्यक्तित्व-विशेषता के विकास में महत्वपूर्ण भूमिका निभाता है। देखा गया है कि बच्चों को खिलौने, कहानी की पुस्तकें,

अन्य खेलने की वस्तुएँ आदि प्रदान करना उनकी रुचियों के विकास में सहायक होते हैं। विद्यालय में इस प्रकार की सुविधाएँ पाठ्यक्रम को रोचक तो बनाती ही हैं साथ ही बच्चों के गुणों व रुचियों के विकास में भी सहायक हो सकती हैं।

रुचि का अर्थ

जब हमारी किसी कार्य में रुचि होती है तो हम उसे बिना किसी के कहे जाने पर भी करना पसंद करते हैं और उसमें हमें आनंद आता है। यदि किसी व्यक्ति को तैरने, ताश खेलने, चित्र बनाने या वाद्य बजाने में आनंद आता है तो हम कह सकते हैं कि उसकी इन क्रियाओं में रुचि है और यदि उसे इन क्रियाओं को करना पसंद नहीं है तो कहा जाएगा कि उसकी इन क्रियाओं में रुचि नहीं है।

किसी क्रिया में रुचि अथवा अरुचि अनुभव पर आधारित होती है। उदाहरण के लिए यदि किसी को पतंग उड़ाने, मोटर चलाने, नाटक करने, फोटोग्राफ़ी सीखने का अवसर ही न प्राप्त हुआ हो तो यह कहना मुश्किल होगा कि उसकी इन कार्यों में रुचि है या नहीं।

रुचि को एक प्रेरक शक्ति माना गया है जो ध्यान को किसी व्यक्ति, वस्तु या क्रिया की ओर उन्मुख करती है।

जैसा कि हमने पहले कहा, रुचि अनुभव द्वारा ही अधिगत होती है। किसी कार्य को करने के पश्चात ही उस कार्य में रुचि अथवा अरुचि का ज्ञान हो सकता है। उदाहरण के लिए ऐसे परिवार में जहाँ बच्चों को तरह-तरह के खेल खिलौनों से सीखने व खेलने की सुविधाएँ मिलती हैं वहाँ उन्हें उन क्रियाओं के अच्छा लगने या न लगने का अधिक अनुभव होता है। इसी प्रकार विद्यालय में बालक–बालिकाओं को यदि विभिन्न प्रकार के खेल, गायन, चित्रकला, नाट्यकला, पुस्तकें पढ़ने, वाद-विवाद आदि जैसी क्रियाओं में भाग

जिस काम में दिल लगे उसे करने में हमें आनंद आता है।

रुचि और साथियों का तादात्म्य

लेने के अधिक अवसर मिलते हैं तो उन्हें अच्छे लगने वाले तथा आनंद मिलने वाले कार्यों का पता लगता है। जिन क्रियाओं से बच्चे को आनंद आता है वह उन्हें मेहनत और लगन से तथा अच्छी तरह कर पाता है और उसे उस कार्य के लिए औरों की प्रशंसा मिलती है। इस प्रकार उसे अपनी रुचियों के विकास के लिए प्रेरणा मिलती है। शिक्षक बच्चों को इस प्रकार के अनुभव प्रदान करने में अत्यंत सहायक हो सकते हैं। शिक्षक यदि सजग है तो वह बच्चों को रुचिकर लगने वाले कार्यों की पहचान कर सकता है और रुचिकर कार्यों में अधिक कौशल प्राप्त करने के लिए प्रोत्साहित कर सकता है।

जरा सोचिए

आपकी रुचियाँ आपके आसपास के व्यक्तियों से किस प्रकार भिन्न हैं? आपके विचार में इन भिन्नताओं के क्या कारण हो सकते हैं?

रुचि जन्मजात एवं अर्जित दोनों ही कारणों से उत्पन्न हो सकती है। रुचि के उद्‌गम के संबंध में मनोवैज्ञानिक सुपर (Super) लिखते हैं कि "रुचि की उत्पत्ति में जहाँ एक ओर जन्मजात अभिक्षमता एवं अंतःस्रावी तत्व (Endocrine factors) सहायक होते हैं वहाँ दूसरी ओर सुविधाओं एवं सामाजिक मूल्यांकन का विशेष हाथ रहता है। कुछ वस्तुएँ जिन्हें व्यक्ति भली भाँति चाहता है तथा जो उसको मान्यता एवं संतुष्टि प्रदान करती हैं, रुचि कहलाती हैं। यही नहीं, कुछ व्यक्तियों में किसी कार्य को करने की रुचि अपने साथियों के तादात्मय से होती है। कभी-कभी व्यक्ति स्वयं भी रुचि के प्रति अपना प्रत्यय बना लेता है।

जरा सोचिए

आपके घर तथा विद्यालय की कौन-सी परिस्थितियाँ, सुविधाएँ अथवा कठिनाइयाँ, आपकी रुचियों के विकास में सहायक अथवा बाधक हुई हैं?

योग्यताओं की भाँति रुचियों के विषय में भी यह विवाद रहा है कि रुचियाँ जन्मजात हैं या अर्जित। काफी विवाद के फलस्वरूप निष्कर्ष निकाला गया कि रुचियों की उत्पत्ति में वंशानुक्रम एवं वातावरण दोनों का ही योगदान रहता है। अर्थात

एक दूसरी विचारधारा के अनुसार सामाजिक परिस्थितियाँ ही रुचियों को प्रभावित करती हैं तथा सामाजिक और आर्थिक भिन्नता के कारण ही रुचियों में अंतर होते हैं।

यह भी कहा जाता है कि रुचियाँ बाल्यकाल

जरा सोचिए

बाल्यावस्था में आपकी किस प्रकार की क्रियाओं में रुचि थी? किशोरावस्था तथा उसके बाद भी क्या आपकी इन रुचियों में कोई परिवर्तन हुए? आपके विचार में इन परिवर्तनों के क्या-क्या कारण हो सकते हैं?

में टिकाऊ या स्थायी रूप नहीं ले पातीं। जैसे-जैसे बच्चा बढ़ता है उसकी रुचियाँ भी बढ़ती रहती हैं। 15-16 वर्ष की आयु के समीप उनमें कुछ दृढ़ता आने लगती है और 24-25 वर्ष के समीप ये स्थायी रूप धारण कर लेती हैं।

एक बच्चा जिसमें विज्ञान अथवा कला की योग्यता है वह इन्हें अच्छी तरह तभी सीख पाएगा यदि उसकी इन विषयों में रुचि विकसित की जाए। अभाव, इच्छाएँ, आदतें, संस्कृति, सुविधाएँ, अनुभव आदि कुछ ऐसे ही स्थिर तत्व हैं जो रुचि को निर्धारित करते हैं। अतः उचित सुविधाएँ प्राप्त होने पर विद्यार्थी के लिए उसकी योग्यता वाले विषय को रुचिकर भी बनाया जा सकता है क्योंकि किसी भी कार्य को अच्छी तरह सीखने के लिए योग्यता और रुचि दोनों का ही होना आवश्यक है।

रुचि के प्रारूप

व्यावसायिक मनोवैज्ञानिकों ने रुचियों का वर्गीकरण चार प्रकार से किया है।

1. अभिव्यक्त रुचि (Expressed Interests)

जब व्यक्ति किसी वस्तु, क्रिया अथवा व्यक्ति के संबंध में अपने विचार व्यक्त करता है कि उसे अमुक वस्तु या क्रिया रुचिकर है या नहीं तो वह व्यक्ति द्वारा अभिव्यक्त की गई रुचियाँ होती हैं। प्रायः इस प्रकार की रुचियाँ अविश्वसनीय होती हैं क्योंकि इसमें अपने वास्तविक विचारों को छिपाकर गलत उत्तर दिया जा सकता है। छोटी उम्र के तथा बिना पढ़े-लिखे व्यक्तियों की रुचियों की जानकारी के लिए इस विधि का प्रयोग किया जाना चाहिए।

2. प्रदर्शित रुचि (Manifest Interest)

प्रदर्शित रुचि को शब्दों द्वारा व्यक्त न करके व्यक्ति के व्यवहार के निरीक्षण द्वारा जाना जाता है। यदि कोई बहुत खेलता है, प्रायः हारमोनियम बजाता है, मित्रों के साथ बातचीत में समय व्यतीत करता है तो इन क्रियाओं में उसकी रुचियों का प्रदर्शन होता है। इस प्रकार की रुचि अधिकतर विश्वसनीय होती हैं परंतु कुछ विचारों के अनुसार ये रुचियाँ भी वास्तविक नहीं होती हैं। हो सकता है विजय क्रिकेट में इसलिए अधिक समय व्यतीत करता है क्योंकि उसका मित्र सुशील क्रिकेट खेलना चाहता है।

3. परीक्षित रुचि (Tested Interests)

व्यक्ति की किसी क्षेत्र में रुचि अधिक होने पर उसकी उस विषय में जानकारी भी अधिक होगी और वह उपलब्धि-परीक्षण द्वारा उस विषय में अधिक अंक प्राप्त करेगा। उदाहरणार्थ मीरा ने संगीत में उपलब्धि-परीक्षण दिए जाने पर 86% अंक प्राप्त किए इसलिए इस परीक्षण में उपलब्धि के आधार पर यह कहा जा सकता है कि उसकी संगीत में रुचि अधिक है।

4. प्रपत्र रुचि (Inventoried Interests)

इस प्रकार की रुचि को मानकीकृत रुचि प्रपत्रों एवं रुचि परीक्षणों के द्वारा ज्ञात किया जाता है। इनमें व्यक्ति को बहुत सी क्रियाओं के समूहों में से कुछ का चयन करना होता है।

जरा सोचिए

अपनी कक्षा में जानने का प्रयत्न कीजिए कि विभिन्न छात्रों के व्यवहार द्वारा प्रदर्शित रुचियों तथा अन्य संबंधित क्रियाओं में उपलब्धियों में क्या समानता है? आपके विचार में इस समानता या असमानता के क्या कारण हो सकते हैं?

जैसा कि हम पहले योग्यताओं की पहचान के संदर्भ में कह चुके हैं, शिक्षकों के लिए मनोवैज्ञानिक मानकीकृत परीक्षणों का प्रयोग संभव नहीं है। अतः योग्यताओं की तरह विद्यार्थियों की रुचियों की जानकारी के लिए भी उन्हें "प्रेक्षण" तथा उपलब्धि-परीक्षणों का ही सहारा लेना होगा।

रुचि प्रतिदर्श (Interest Patterns)

अधिकांश व्यक्तियों की बहुत सी रुचियाँ होती हैं, केवल एक ही नहीं। ये रुचियाँ असंबंधित विषयों में भी हो सकती हैं जैसे कला, गणित, नागरिक शास्त्र तथा शारीरिक क्रियाओं जैसे खेलकूद, फोटोग्राफी, आदि में।

यद्यपि किसी विद्यार्थी की असंबंधित क्रियाओं में रुचि हो सकती है परंतु उसकी कुछ रुचियाँ दूसरों की अपेक्षा सबल होंगी। रुचियों का समुच्चय साथ ही साथ उनकी सबलता ही रुचि प्रतिदर्श है। सभी क्रियाओं में सफलता के लिए एक रुचि प्रतिदर्श की आवश्यकता होती है। उदाहरण के लिए नाटक की वेषभूषा का प्रबंध करने के लिए, पोशाक को चुनने तथा उनको नया स्वरूप देने के लिए कलात्मक रुचि, उनकी खपत के लेखे के लिए सांख्यिकी रुचि की आवश्यकता होगी। इसी प्रकार एक अच्छा चिकित्सक बनने के लिए विज्ञान विषयों में रुचि के अतिरिक्त, रोगियों की सेवा करने, दूसरों के साथ मिलकर कार्य करने, यंत्रों और औजारों से कार्य करने में भी रुचि होनी चाहिए। एक अच्छी गृहिणी को सीने-पिरोने, भोजन बनाने, आंतरिक सज्जा और परिचर्या आदि रुचियों की आवश्यकता होती है।

अर्थात हम यह कह सकते हैं कि एक सामान्य रुचि में अनेक विशिष्ट क्रियाओं की रुचि सम्मिलित होती है। एक उदाहरण लें : यदि किसी विद्यार्थी को विक्रेता का काम पसंद है तो उसे दूसरों से बात करना, विक्रय वस्तु की जानकारी प्राप्त करना, बहुत देर तक कार्य करना, वस्तुओं के आर्डर प्राप्त करना, उनका रिकार्ड रखना और ग्राहकों की शिकायतें सुनना भी पसंद होगा अर्थात विक्रय कार्य में ये सभी क्रियाएँ या कुछ और भी सम्मिलित होंगी। अतः विद्यार्थी में किसी भी रुचि का होना इस बात पर निर्भर है कि उसकी अनेक संबंधित क्रियाओं में रुचि है या नहीं? किसी भी व्यवसाय में अथवा कार्य में सफलता पाने के लिए व्यक्ति की उन सभी क्रियाओं में रुचि होनी चाहिए जो उस व्यवसाय के कार्यों से संबंधित हैं।

रुचि क्षेत्र (Interest areas)

मनोवैज्ञानिकों ने अपने अध्ययनों के द्वारा बहुत सी क्रियाओं को रुचि क्षेत्रों में संयोजित किया है। अमरीकी मनोवैज्ञानिक जी. फ्रेडरिक कुदर ने रुचियों के दस क्षेत्रों का वर्णन किया है। अधिकांश क्रियाएँ इन दस क्षेत्रों में वितरित की जा सकती हैं जो इस प्रकार हैं :—

रुचि क्षेत्र	पाठ्य विषय तथा अन्य कार्य
1. सांख्यिकी रुचि	इस रुचि वाले विद्यार्थी प्रायः गणित, बुककीपिंग, लेखाशास्त्र के कार्यों को पसंद करते हैं। इनकी अंकों के साथ काम करने में विशेष रुचि होती है।
2. वैज्ञानिक रुचि	इस क्षेत्र में रुचि रखने वाले विद्यार्थी भौतिक शास्त्र, रसायन शास्त्र, जीव बिज्ञान, गणित आदि विषयों में

		आनंद प्राप्त करते हैं। इन्हें विशेषकर प्रयोगात्मक कार्य करना, तथा समस्याओं के हल निकालना अच्छा लगता है।
3.	**यांत्रिक रुचि**	ये मशीनों को बनाना या उनकी मरम्मत करना पसंद करते हैं तथा ये औजारों और यंत्रों के प्रयोग में शीघ्र ही कुशलता प्राप्त कर सकते हैं।
4.	**प्रवर्तक रुचि**	इस रुचि वाले व्यक्ति अन्य व्यक्तियों से मिलना, अपनी बातचीत द्वारा उन्हें विश्वास दिलाना तथा दूसरों से अधिक संबंध बढ़ाना पसंद करते हैं। इन्हें विक्रय कार्य, सामाजिक आयोजनों जैसे पिकनिक, पार्टी आदि का आयोजन करना तथा उनमें भाग लेना अच्छा लगता है।
5.	**कलात्मक रुचि**	ये व्यक्ति सृजनात्मक कार्य करते हैं। इन्हें रेखाचित्र, चित्रकारी, नृत्य, मॉडल बनाना, अभिनय करना, आंतरिक सज्जा करना, वस्त्रों के डिजाइन बनाना, फूल सजाना आदि काम विशेष रूप से पसंद होते हैं।
6.	**साहित्यिक रुचि**	प्रबल साहित्यिक रुचि वाले व्यक्ति लेख, कहानी, नाटक, कविता आदि पढ़ना, लिखना, सुनना अथवा उनकी रचना करना पसंद करते हैं। इन्हें हिन्दी, अंग्रेजी तथा अन्य भाषाओं संबंधी साहित्य में भी रुचि होती है।
7.	**संगीतात्मक रुचि**	इस क्षेत्र के व्यक्तियों को संगीत सभाओं में जाना, वाद्‌य बजाना, गाना, संगीत संबंधी पुस्तकों को पढ़ना अच्छा लगता है। इन्हें संगीत सृजन में भी रुचि होती है।
8.	**समाज-सेवा रुचि**	समाज-सेवा में रुचि रखने वाले दूसरों की सहायता करना पसंद करते हैं। इन्हें बीमार, निर्धन, दुखी तथा हताश व्यक्तियों की सेवा करना, उनसे बात करना, उनके दुखों के विषय में सुनना और सलाह देना अच्छा लगता है।
9.	**लिपिक रुचि**	इन्हें किसी भी एक प्रकार के कार्य को निरंतर, शीघ्रता और परिशुद्धता से करना अच्छा लगता है। इस रुचि वाले व्यक्ति कार्यालयों में पत्रलेखन, फाइलिंग, टाइपिंग,

		आशुलिपि, टेलीफोन ऑपरेटर आदि कार्यों को पसंद करते हैं।
10.	बाह्य अभिरुचि	इस रुचि वाले व्यक्तियों को घर से बाहर समय व्यतीत करना अच्छा लगता है। इन्हें लंबे सफर करना, शिविर समारोहों में भाग लेना, जंगली फूलों को एकत्रित करना, जंगलों में चिड़ियों तथा अन्य जीव-जन्तुओं का निरीक्षण करना तथा पर्वतारोहण आदि क्रियाएँ करना विशेष रूप से पसंद होता है।

जरा सोचिए

आप जिस व्यवसाय में हैं या जिसमें जाने की सोच रहे हैं वह किस रुचि क्षेत्र से संबंधित है? क्या आपकी रुचि इस रुचि क्षेत्र से संबंधित सभी क्रियाओं में है?

जैसा कि इस अध्याय में हमने प्रारंभ में कहा, विद्यालय में विभिन्न क्रियाओं जैसे खेलकूद, नृत्य, संगीत, अभिनय, चित्रकला, कहानी, लेख, कविताएँ पढ़ने, सुनने तथा लिखने, वाद-विवाद, लकड़ी तथा धातु से विभिन्न प्रकार की सजावट की वस्तुओं को बनाने, नक्काशी करने, बिजली के यंत्रों के मॉडल बनाने, बुनाई, सिलाई, कढ़ाई, कपड़ा रँगने, डिजाइन बनाने, तरह-तरह की छपाई करने तथा अन्य संबंधित कार्यों की अधिक से अधिक सुविधाएँ उपलब्ध होनी चाहिए ताकि बच्चों को अपनी रुचियों की पहचान और विकास के अवसर मिल पाएँ। विशेष प्रतिभा वाले बच्चों को कार्य का अनुभव प्राप्त होने पर ही आनंद की अनुभूति होगी। इस प्रकार उन्हें अपनी क्षमता के कार्यों में रुचि उत्पन्न करने का अवसर मिलेगा। इस बात पर विशेष ध्यान दिया जाना चाहिए कि जो बच्चे निम्न आर्थिक सामाजिक परिस्थितियों से आए हैं, और जिन्हें इस प्रकार की सुविधाएँ घरों में उपलब्ध नहीं होतीं उन्हें इन क्रियाओं में भाग लेने के लिए विशेष रूप से प्रोत्साहित किया जाए। विद्यालय में समय-समय पर इन क्रियाओं में प्रतियोगिताएँ आयोजित की जाएँ जिससे रुचिकर कार्य में योग्यता का भी विकास हो सके। प्रत्येक शहर में ऐसे कई संस्थान हैं जहाँ बच्चों को अपनी रुचिकर क्रियाएँ करने के अवसर मिल सकते हैं। इस प्रकार के संस्थानों में "बाल भवनों" द्वारा उपलब्ध सुविधाएँ विशेष रूप से उल्लेखनीय हैं। इनकी जानकारी शिक्षक, बच्चों व माता-पिता को दें। विद्यालय की ओर से बच्चों को अजायबघर, चित्रकला संग्रहालयों, कृत्रिम नभ-मंडल (Planetarium), विज्ञान मेलों, बाल मेलों, वैज्ञानिक संस्थानों, विज्ञान-प्रदर्शनियों आदि को दिखाने के लिए ले जाया जाय। प्रत्येक समुदाय में सामुदायिक क्लब, पुस्तकालय, तथा नृत्य, संगीत, चित्रकला तथा अन्य कलाओं की शिक्षा के लिए विशेष संस्थान भी उपलब्ध होते हैं। ऐसे संस्थानों की जानकारी यदि शिक्षकों द्वारा बच्चों को दी जाय तो बच्चों की रुचियों के विकास में सहायता हो सकती है। विद्यालय में

एन.सी.सी., स्काउट्स एवं गाइड, विज्ञान मेले आदि के अंतर्गत की जाने वाली क्रियाओं का बच्चों की व्यक्तित्व-विशेषताओं के विकास में महत्वपूर्ण योगदान होता है। शिक्षक यह देखें कि इन क्रियाओं में अधिक से अधिक बच्चे भाग लें। विद्यालय द्वारा बच्चों को देश के ऐतिहासिक, सांस्कृतिक संस्थानों तथा विशेषकर ऐसे संस्थानों में जहाँ रुचियों के विकास की सुविधाएँ हों, भ्रमण के लिए ले जाया जाए। बहुत से ऐसे क्लब एवं संस्थान हैं जो बच्चों के लिए अवकाश-कालीन शिविर समारोहों, चित्रकला प्रतियोगिताओं, बाल मेलों, हाइकिंग आदि का आयोजन करते हैं। इस संबंध में कुछ सूचना "इंडियन काउंसिल फॉर चाइल्ड वेलफेयर", शहर के बालभवन, "नेशनल स्पोर्ट्स क्लब ऑफ इंडिया" आदि के स्थानीय दफ्तरों से प्राप्त की जा सकती है।

जरा सोचिए

अपने विद्यालय में छात्रों में विभिन्न रुचियों के विकास के लिए आप किस प्रकार के सुझाव देना चाहेंगे?

सारांश–अध्याय 7

किसी भी कार्य की सफलता-प्राप्ति में रुचियों का क्या महत्व है?	रुचि एक प्रेरक शक्ति है जो व्यक्ति को कार्य की ओर उन्मुख करती है। इसलिए रुचिकर कार्य को करते हुए व्यक्ति को आनंद व सुख का अनुभव होता है। ऐसे कार्य को व्यक्ति बार-बार करना चाहता है अतः उसमें सफलता-प्राप्ति की संभावना अधिक होती है।
योग्यता व रुचि का क्या संबंध है?	जिस कार्य में व्यक्ति को आनंद आता है वह उसे मेहनत व लगन से अच्छी तरह कर पाता है अतः रुचिकर कार्य में योग्यता का विकास किया जा सकता है।
रुचियों को किस-किस तरह जाना जा सकता हैं?	रुचियों के विषय में व्यक्ति के विचारों द्वारा, व्यवहार द्वारा, कार्यों में उपलब्धि द्वारा तथा परीक्षणों द्वारा जाना जा सकता है।
रुचि प्रतिदर्श किसे कहते हैं ?	एक सामान्य रुचि में अनेक क्रियाओं की रुचि सम्मिलित होती है। किसी भी कार्य में सफलता पाने के लिए उससे संबंधित सभी क्रियाओं में रुचि होनी आवश्यक है।

अधिकांश कार्यों को किन-किन रुचि-क्षेत्रों में वितरित किया गया है?	मनोवैज्ञानिकों ने अधिकांश कार्यों को सांख्यिक, वैज्ञानिक, यांत्रिक, प्रवर्तक, कलात्मक, साहित्यिक, संगीतात्मक, समाज सेवा, लिपिक एवं बाह्य दस क्षेत्रों में विभाजित किया है।
रुचि-क्षेत्रों का पाठ्यविषयों, अन्य क्रियाओं तथा व्यवसायों से क्या संबंध है?	अधिकांश पाठ्यविषयों, क्रियाओं तथा व्यवसायों को रुचि-क्षेत्रों के अंतर्गत वर्गीकृत किया जा सकता है। व्यवसाय में किए जाने वाले कार्य यदि व्यक्ति के लिए रुचिकर हों तो उनमें सफलता की संभावना अधिक होगी।

अभ्यास

1. अपने रुचिकर लगने वाले कार्यों की सूची बनाइए। आपके विद्यालय में इन रुचियों के विकास के लिए क्या-क्या सुविधाएँ उपलब्ध हैं?
2. ये रुचिकर क्रियाएँ किन-किन रुचि-क्षेत्रों में वर्गीकृत की जा सकती हैं?
3. अपने शहर के कुछ ऐसे समुदायिक संस्थानों के विषय में सूचना एकत्रित कीजिए जहाँ विद्यार्थियों के लिए विभिन्न क्रियाओं में भाग लेने के अवसर उपलब्ध हों।

8

कुछ प्रश्न

- रुचियों का पाठ्यविषयों में उपलब्धि से क्या संबंध है?
- रुचियों के विकास से अवकाश के समय का उपयोग किस प्रकार किया जा सकता है?
- रुचियाँ विषयों के चुनाव में किस प्रकार सहायक हैं?
- क्या एक रुचि के आधार पर अनेक व्यवसाय चुने जा सकते हैं?

उद्देश्य

इस लेख को पढ़कर आप जान सकेंगे कि :

- विद्यालय की विभिन्न क्रियाओं में सफलता-प्राप्ति में रुचियों का विशेष स्थान है।
- व्यवसाय में सफलता बहुत कुछ इस बात पर निर्भर है कि उसमें किए जाने वाले कार्य कहाँ तक व्यक्ति की रुचियों से संबंधित हैं।
- रुचियाँ हमारे जीवन को रुचिकर बनाने तथा अवकाश के समय के सदुपयोग में सहायक होती हैं।
- किसी एक रुचि-क्षेत्र के अंतर्गत अनगिनत व्यवसाय आ जाते हैं।

शिक्षा एवं व्यवसाय में रुचियों की भूमिका

रुचियों का पाठ्यविषयों में उपलब्धि से विशेष संबंध है। जिस विषय में विद्यार्थी की रुचि है उसमें उसे अच्छे अंक प्राप्त करने की संभावना भी अधिक होगी। यह सत्य है कि विद्यालय में सफलता के लिए और भी बहुत से कारक महत्वपूर्ण हैं जैसे बुद्धि, योग्यता, कठिन परिश्रम, पढ़ाई की विधियाँ आदि। परंतु रुचि विद्यार्थी को प्रेरणा देती है और कठिन कार्य करने के लिए भी प्रोत्साहित करती है जिससे कठिन कार्य को करते हुए आनंद की प्राप्ति होती है। अतः शैक्षिक तथा व्यावसायिक जीवन में सफलता-प्राप्ति में रुचियों का प्रमुख स्थान है।

रुचियाँ सहपाठ्य विषयों के चयन में भी विद्यार्थी की सहायता करती हैं। इनकी सहायता से विद्यार्थी का विद्यालयी जीवन आनंदमय बन सकता है क्योंकि रुचिकर कार्यों को करने से विद्यार्थी की प्रतिष्ठा, सम्मान, अनुमोदन जैसी व्यक्तिगत आवश्यकताओं की पूर्ति होती है। इनके कारण उसकी विद्यालय के बाहर की दिनचर्या भी नियमित हो जाती है। इसके अतिरिक्त अवकाश के समय को अर्थपूर्ण ढंग से बिताने के लिए, मन बहलाने व जीवन में सुख-संतोष की प्राप्ति के लिए भी रुचियों का विकास आवश्यक है। दिन प्रतिदिन एक-सा काम करते रहने के कारण उत्पन्न थकान तथा कामकाजी जीवन की नीरसता को दूर करने में भी रुचियों का बहुत महत्व है। जीवन के ऐसे क्षणों में जब कठिनाइयाँ और परेशानियाँ आती हैं, तथा प्रौढ़ावस्था अथवा वृद्धावस्था आने पर जब सक्रिय जीवन में थोड़ी स्थिरता आने लगती है, उस समय व्यक्ति के पास अवकाश का समय भी अधिक होता है तब शैशवकाल में विकसित रुचियाँ जीवन की रिक्तता को दूर करने में अत्यंत सहायक होती हैं।

प्राथमिक स्तर से ही यदि बच्चों की रुचियों के विकास की ओर ध्यान दिया जाए तो दसवीं कक्षा आने तक उन्हें अपनी सबल रुचियों का काफी सीमा तक ज्ञान हो सकेगा और ग्यारहवीं कक्षा में उन्हें अपनी सबल रुचियों तथा योग्यताओं के आधार पर उचित विषयों के चुनाव में सहायता मिलेगी।

विषयों के चुनाव के समय विद्यार्थियों को अपने लक्ष्य के व्यवसाय की ओर भी ध्यान देना चाहिए जैसे व्यावसायिक क्षेत्र का निर्णय, योग्यताओं के साथ-साथ रुचियों को भी ध्यान में रखकर किया जाना चाहिए। व्यवसाय में भी आनंद तथा सफलता की प्राप्ति में रुचियों की भूमिका महत्वपूर्ण है। आप ऐसे बहुत से व्यक्तियों को जानते होंगे जो केवल इसलिए काम करते हैं कि उसके द्वारा वे अपना और परिवार का पालन पोषण करते हैं परंतु उन्हें कार्य करते हुए किसी प्रकार के आनंद की प्राप्ति नहीं होती क्योंकि उन्हें अपना काम रुचिकर नहीं लगता।

उदाहरण के लिए राहुल और आशीष को ही लीजिए जो एक ही कार्यालय में काम करते हैं,

उनको एक ही वेतन मिलता है, एक साथ ही पदोन्नति होती है और अनेक दृष्टिकोणों से वे इंजीनियरिंग कार्य में समान रूप से सफल समझे जाते हैं परंतु उन दोनों में एक बहुत बड़ा अंतर यह है कि राहुल की अपने कार्य में रुचि है परन्तु आशीष को इंजीनियरिंग कार्य अधिक रुचिकर नहीं है। राहुल अपने ओवरसियर्स को कार्य करने में प्रोत्साहित करता है और उन्हें उचित प्रकार की सलाह देता है और निर्माण स्थलों पर कार्य के निरीक्षण को महत्वपूर्ण समझता है। इसके विपरीत आशीष निर्माण स्थल पर कार्य निरीक्षण करने से जी चुराता है, अधीनस्थ कर्मचारियों को ठीक समय पर परामर्श नहीं प्रदान करता और कई बार उसका अपने सहयोगियों से झगड़ा भी हुआ है। जब आशीष गौरव से पूछता है कि तुम क्यों निर्माण स्थल पर इतना समय व्यतीत करते हो, तो गौरव सदा कहता है कि मुझे इस कार्य में रुचि है, मैं इस भवन को अच्छा बनते देखना चाहता हूँ। इस प्रकार हम प्रायः देखते हैं कि जिन्हें अपने कार्य में रुचि होती है वे कार्य में अधिक समय और शक्ति लगाने में नहीं हिचकिचाते और घर का तथा अवकाश के समय का बहुत बड़ा भाग अपने व्यवसाय संबंधी कार्यों में लगा देते हैं क्योंकि उस कार्य में उन्हें आनंद मिलता है और उसमें ही सुख और संतोष की प्राप्ति होती है।

आज के इस वैज्ञानिक युग में ऐसे असंख्य व्यवसाय हैं जिनमें से विद्यार्थी अपने लिए किसी भी व्यवसाय का चुनाव कर सकता है। परंतु इसका तात्पर्य यह नहीं कि उसकी रुचियों और प्रशिक्षण के अनुकूल तथा उसकी आवश्यकताओं की पूर्ति करने वाला केवल एक ही व्यवसाय होगा। ऐसे कई व्यवसाय हो सकते हैं जिनसे उसकी रुचि के साथ-साथ आवयकताओं की भी पूर्ति होगी। उदाहरण के लिए यदि किसी विद्यार्थी की साहित्यिक क्रियाओं में रुचि प्रबल है तो वह संपादक, भाषा-अध्यापक, पत्रकार, लेखक, पुस्तकाध्यक्ष, वकील, न्यायाधीश आदि में से किसी भी व्यवसाय में जा सकता है। इसी प्रकार यांत्रिक कार्यों में रुचि रखने वाले मोटर मेकेनिक, इंजीनियर, मशीनिस्ट, फिटर आदि व्यवसायों में से किसी भी व्यवसाय को अपना सकते हैं। यद्यपि ये सभी व्यवसाय भिन्न हैं और सामाजिक और आर्थिक दृष्टिकोण से भिन्न-भिन्न आवश्यकताओं की पूर्ति करते है।

आगे के पृष्ठों में एक तालिका दी जा रही

जरा सोचिए

किसी व्यवसाय में दो व्यक्तियों से बातचीत करके जानने का प्रयत्न कीजिए कि वे अपने व्यवसाय में कितने संतुष्ट व असंतुष्ट हैं। उनसे इसके कारणों को जानने का भी प्रयत्न कीजिए।

जरा सोचिए

आप जिस व्यवसाय में हैं या जिसे अपनाने की सोच रहे हैं उसमें किए जाने वाले कार्य आपके लिए कितने रुचिकर हैं?

है जो विभिन्न रुचि-क्षेत्रों से संबंधित व्यवसायों को दिखाती है।

इस तालिका की सहायता से अध्यापक छठी, सातवीं तथा आठवीं कक्षाओं के बालक/बालिकाओं को जिन्हें अपनी रुचियों के विषय में थोड़ी बहुत जानकारी हो गई है, अपनी रुचि के क्षेत्र से संबंधित व्यवसायों के विषय में अधिक सूचना एकत्र करने के लिए प्रोत्साहित करें। दसवीं कक्षा आने तक वे इन रुचियों से संबंधित विषयों में अच्छी उपलब्धि के प्रयास भी कर पाएँगे ताकि वे ग्यारहवीं कक्षा में उन विषयों को चुन पाएँ।

शिक्षक विद्यार्थियों को अपनी पसंद के व्यवसायों से संबंधित उच्च शिक्षा/प्रशिक्षण, कार्य प्रकृति तथा कार्य के अवसरों के विषय में जानकारी एकत्र करने के लिए कहें। इस प्रकार की सूचना विद्यार्थी अपने माता-पिता, सगे संबंधियों, व्यवसाय में काम करने वालों से पत्र व्यवहार करके अथवा उनसे बातचीत करके एकत्र कर सकते हैं। शिक्षा एवं व्यवसाय संबंधी सूचना विद्यालयों में परामर्श दाता से ली जा सकती है। इसके लिए विद्यार्थियों को परामर्शदाता से संपर्क करने के लिए कहा जाए।जहाँ परामर्शदाता उपलब्ध नहीं है ऐसे विद्यालयों में शिक्षक विद्यार्थियों को विषय से संबंधित शैक्षिक और व्यावसायिक सूचना देने का प्रयास करें तथा उन्हें ऐसे सूत्रों जैसे पास के रोजगार के दफ्तर तथा व्यावसायिक साहित्य के विषय में भी जानकारी दें जहाँ से वे स्वयं ऐसी सूचना एकत्र कर सकें।

इस प्रकार शिक्षक विद्यार्थियों में शिक्षा के प्रारंभिक वर्षों से ही व्यावसायिक जागरुकता तथा तत्परता उत्पन्न करने में सहायक हो सकते हैं।

रुचियों से संबंधित व्यवसाय तालिका

वैज्ञानिक रुचि

भौतिकविद्	पुरातत्ववेत्ता	मत्स्यवैज्ञानिक	गणितविद्
रसायनविद्	कृषिविद्	कृमिशास्त्रवेत्ता	समन्वेषक
धातुकर्मविज्ञ	वनस्पतिविज्ञानवेत्ता	मनोवैज्ञानिक	विज्ञान अध्यापक
सागरवर्णनशास्त्री	चिकित्सक	मानसिक चिकित्सक	सर्वेक्षक
भूगर्भविद्	शरीर विज्ञान विशेषज्ञ	नक्शानवीस	औषधकारक
भूकम्पवैज्ञानिक	जीवाणुवेत्ता	जीव विशेषज्ञ	अनुसंधानकर्ता
खनिजवेत्ता	सलोतरी	प्रयोगशाला प्राविधिक	स्वास्थ्य परिचारिका
	(वेटरनरी डाक्टर)	पथ्यभोक्ता	औषध उत्पादक
अन्वेषक	दृष्टि परीक्षक	सांख्यिकीविद्	रसायनशास्त्री
	शल्य चिकित्सक	आयव्ययपरीक्षक	प्रयोगशाला सहायक

यांत्रिक रुचि

यांत्रिक इंजीनियर
सिविल इंजीनियर
केमिकल इंजीनियर
इलैक्ट्रीकल इंजीनियर
औद्योगिक इंजीनियर
कम्प्यूटर इंजीनियर
खानं इंजीनियर
इलैक्ट्रॉनिक्स इंजीनियर
एरोनॉटिकल इंजीनियर
लोकोमोटिव इंजीनियर

विमान चालक
ओवरसियर
नक्शानवीस
व्यावसायिक चिकित्सक
दन्तशिल्पी
इलैक्ट्रोप्लेटर
वातानुकूलन एवं प्रशीतन यांत्रिक
मशीनिस्ट
सांचाकार
फिटर

इलैक्ट्रिशियन
रेडियो तथा टेलीविजन मेकेनिक
यंत्रमेकेनिक
वैल्डर
लाइनमैन
वायरमैन
घड़ीसाज
मोटर मेकेनिक
टेलीफोन मेकेनिक
डाइफिटर

लोहार
वढ़ई
नलकार
ऑफिस मशीन ऑपरेटर
धातुचादर कारीगर
औजार निर्माता
क्रेन ऑपरेटर
लिफ्टमैन
सानकारीगर
टाइपसेटिंग मशीन ऑपरेटर
कंपोजिटर

साहित्यिक रुचि

पत्रकार	साहित्य आलोचक	हस्तलिपि लेखक	रेडियो अभिज्ञापक
कला आलोचक	स्तंभ-लेखक	विज्ञापनकर्ता	न्यायाधीश
कहानीकार	निवन्धकार	विज्ञापन आलोचक	वकील
लेखक	संवाददाता	समुपदेष्टा	प्रवक्ता
कवि	इतिहासकार	अभिनेता	पुस्तकाध्यक्ष
प्रकाशक			विक्रेता

वाणिज्यक रुचि

वैंकर	लेखप्रमाणक	क्रय अधिकारी	कौस्ट एनालिस्ट
बैंक मैनेजर	शेयरदलाल	वकील	उत्पादनकर्ता
बैंक क्लर्क	अल्पशः विक्रेता	निर्यातकर्ता	सचिव
कैशियर	दलाल	बीमाएजेन्ट	आशुलिपिक
कोषाध्यक्ष	थोकव्यापारी	चार्टर्ड एकाउंटेंट	ठेकेदार
लेखाकार	उद्योगपति		विक्रेता

सामाजिक रुचि

समाजसेवक	पादरी/मौलवी/पुरोहित	समुपदेष्टा	विदेशी संवाददाता
जन सम्पर्क अधिकारी	स्वास्थ्य परिचारिका	दुभाषिया	अध्यापक
समाजविज्ञानवेत्ता	व्यावसायिक चिकित्सक	अनुवादक	कैरियर टीचर
परामर्शदाता	व्यायाम प्रशिक्षक	प्रकाशक	स्वास्थ्य निरीक्षक
मनोचिकित्सक	चिकित्सक	पत्रकार	श्रमकल्याण-अधिकारी
मनोवैज्ञानिक	मेयर	लेखक	वालसेविका
वकील	राजनीतिज्ञ	राजदूत	शिशु शिक्षक
कानूनी सलाहकार			ग्राम सेवक

ललितकला रुचि

कर्मिशयल कलाकार	अभिनेता/अभिनेत्री	सज्जाकार	बुनकर
कला समालोचक	मॉडल	वस्त्र-डिजाइनर	कसीदाकार
विज्ञापन-कर्ता	मूर्तिकार	फर्नीचर डिजाइनर	शिल्पकार
विज्यूलाइजर	नर्तक	संगीत-निर्देशक	टेलर
कार्टूनिस्ट	चित्रकार	फिल्म-निर्देशक	गद्दी बनाने वाला
वास्तुविद	वादक	एँटीक-डीलर	बढ़ई
पुरातत्ववेत्ता	संगीतकार	नक्काशी करने वाला	कुम्हार
नाटककार	गायक	सुनार	खिलौनाकार
कवि			पुतली बनाने वाला

लिपिक रुचि

लिपिक	टाइपिस्ट	होटल-कीपर	स्टॉक क्लर्क
आशुलिपिक	लाइब्रेरी असिस्टैंट	स्टोर-कीपर	विक्रेता
फाइल क्लर्क	सेक्रेटरी (सचिव)	क्रय-अधिकारी	टिकटचेकर
इन्श्योरेन्स क्लर्क	दूरभाप परिचालक	हाउस-कीपर	बुकबाइंडर
लेखाकार	बैंकक्लर्क	स्वागतकर्ता	रेलवे-क्लर्क
कोषाध्यक्ष	बुककीपर	ट्रैफिक पुलिसमैन	प्रयोगशाला-प्राविधिक

बाह्य रुचि

खिलाड़ी	उद्यान रक्षक	थल/जल सेना तथा	जन-सेवा अधिकारी
गाइड	फार्ममेकैनिक	वायुसेना ऑफिसर	स्वागतकर्ता
शिकारी	कुक्कुटपालक	पोताधिकारी	पुरातत्ववेत्ता
कृषक	पर्वतारोही	विमानचालक	बस कंडक्टर
पुष्पवेत्ता	खेलकूद प्रबंधक	विमानपरिचारिका	ड्राइवर
उद्यानविद	अरण्यरक्षक	सलोतरी	विक्रय प्रतिनिधि
कृषि अधिकारी		बीमाएजेंट	सर्वेक्षक

जरा सोचिए

दी गई तालिका में कौन-कौन से व्यवसाय आपके द्वारा पढ़ाए जाने वाले विषयों से संबंधित हैं?

सारांश–अध्याय 8

रुचि को शिक्षा एवं व्यवसाय की सफलता में एक महत्वपूर्ण कारक क्यों माना गया है?	रुचिकर कार्य को करते हुए विशेष आनंद की प्राप्ति होती है। रुचिकर विषय विद्यार्थी को कम कठिन लगता है इसी प्रकार रुचिकर व्यवसाय में व्यक्ति अपना अधिकांश समय और शक्ति व्यतीत कर देते हैं। रुचिकर कार्य व्यक्ति की कई आवश्यकताओं की पूर्ति करते हैं।
विभिन्न रुचि-क्षेत्र व्यवसायों से किस प्रकार संबंधित हैं?	एक रुचि-क्षेत्र के अंतर्गत अनेक व्यवसाय हैं जिनकी जानकारी होने पर व्यक्ति अपने लिए योग्यता और रुचि के उपयुक्त व्यवसाय का चुनाव कर सकता है।

अभ्यास

विद्यार्थियों के लिए

1. जो विषय तुम पढ़ रहे हो वे तुम्हारी रुचियों से किस प्रकार संबंधित हैं?
2. लेख में दी गई तालिका की सहायता से अपनी प्रबल रुचियों से संबंधित व्यवसायों को लिखो।
3. अपनी पसंद के किसी एक व्यवसाय को चुनकर उससे संबंधित चित्र एवं कार्य संबंधी सूचना एकत्रित कर एक चार्ट बनाओ।

शिक्षकों के लिए

आपके द्वारा पढ़ाए जाने वाले विषयों से संबंधित व्यवसायों के बारे में पास के रोजगार दफ्तर अथवा अन्य प्रशिक्षण केन्द्रों से विद्यालय के पुस्तकालय के लिए पठन सामग्री प्राप्त करिए।

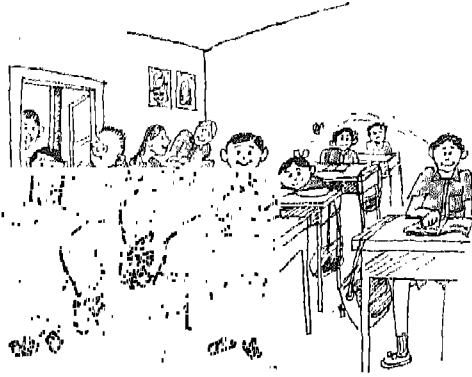
कुछ प्रश्न

- सीखने की क्षमता को प्रभावित करने वाले कारक कौन-कौन से हैं?
- सीखने की क्रिया को सहज किस प्रकार बनाया जा सकता है?
- बच्चों में अध्ययन संबंधी सही आदतों का विकास किस प्रकार किया जाए?
- "अधिगम संबंधी विकलांगता" क्या है? यह किस-किस प्रकार की होती है?
- सामान्य कक्षा में ही सीखने संबंधी कठिनाइयों का निदान किस प्रकार किया जा सकता है?

उद्देश्य

इस लेख को पढ़कर आप जान सकेंगे कि :

- कक्षा में सभी बच्चे सीखने के लिए समान रूप से तत्पर नहीं होते।
- ये असमानताएँ बच्चों की सामाजिक व मानसिक परिपक्वता, सामाजिक परिवेश व अन्य कई कारकों के प्रभाव के कारण होती हैं।
- अध्ययन संबंधी आदतों तथा पढ़ने-लिखने व अंकों से कार्य कर पाने से संबंधित कठिनाइयों को दूर करने के प्रयासों द्वारा बच्चों की सीखने की क्षमता को बढ़ाया जा सकता है।

सीखने में भिन्नता तथा स्कूली उपलब्धि

हर व्यक्ति की सीखने की क्षमता और शैली में अंतर होता है।

अब तक हमने देखा कि योग्यताओं, रुचियों तथा अन्य व्यक्तित्व-विशेषताओं में अंतर के फलस्वरूप बच्चों की स्कूली तथा अन्य उपलब्धियों में भिन्नता होती है परंतु इस भिन्नता का कारण कुछ और भी है और वह है विद्यार्थियों की सीखने की क्षमता, तथा सीखने की विधियों में अंतर।

सीखना तथा मानव-विकास

मानव का विकास सीखने के द्वारा हुआ है- इसका प्रमाण हमें अपनी सभ्यता और संस्कृति के विकास को देखते हुए मिलता है। मनुष्य प्रत्येक क्षण वातावरण में विभिन्न परिस्थितियों, व्यक्तियों तथा वस्तुओं से क्रिया-प्रक्रिया करते हुए कुछ-न-कुछ सीखता है। शैशव से वयस्क होने तक उसके व्यवहार, चिन्तन आदि में अनेक परिवर्तन आते हैं। सीखने की प्रक्रिया के फलस्वरूप ही उसे नए-नए अनुभव प्राप्त होते हैं जो उसके ज्ञान और कौशल को परिष्कृत करते हैं परंतु सीखने की क्षमता शारीरिक और मानसिक परिपक्वता पर निर्भर है। यह बात ध्यान देने योग्य है कि अपरिपक्वता में दिया गया प्रशिक्षण व्यर्थ जाता है। उदाहरण के लिए छह माह के बच्चे से यह अपेक्षा नहीं की जा सकती कि वह चलना सीख लेगा। इसी प्रकार तीन वर्ष का बच्चा ठीक से लिखना नहीं सीख पाएगा इसका कारण है इस आयु तक उसके हाथों, उँगलियों तथा मांसपेशियों का पर्याप्त विकास एवं उनमें सामंजस्य नहीं हो पाता। पाया गया है कि पौष्टिक आहार के अभाव में जिन बच्चों का शारीरिक विकास ठीक नहीं होता, उनमें सीखने की क्षमता भी कम होती है। सीखने की क्रिया तभी उत्तम होगी जबकि सीखने की सामग्री व उससे प्राप्त होने वाले अनुभव, सीखने वाले की परिपक्वता एवं उसकी अनुभवात्मक पृष्ठभूमि पर आधारित हों। आपमें से बहुत से शिक्षक शायद यह अनुभव कर चुके हों कि विभिन्न सामाजिक-आर्थिक परिस्थितियों से आए बालकों के सीखने के ढंग में भिन्नता होती है। आपने शायद यह भी देखा होगा कि जब आप किसी विशेष प्रकार के विद्यार्थी समूह को अलग तरीकों से पढ़ाने का प्रयत्न करते हैं तो उनके द्वारा सीखे गए काम में सुधार हो जाता है। विशेषकर मंदगति से सीखने वाले तथा अवर उपलब्धि करने वाले

छात्रों के लिए यदि उनकी मानसिक योग्यताओं, रुचियों और सामाजिक परिवेश के अनुरूप पठनविधि एवं पठनसामग्री का उपयोग किया जाए तो उनकी स्कूली उपलब्धि में सुधार लाया जा सकता है।

हमारी शिक्षा में क्षति तथा विद्यालयों में छात्रनिष्क्रमण के कई कारणों में प्रमुख कारण हैं शिक्षण विधि तथा पठनसामग्री का बालकों की आवश्यकतानुसार न होना, पाठ्यचर्या का बहुत सरल अथवा कठिन होना तथा सीखने के लिए पर्याप्त सुविधाओं का उपलब्ध न होना आदि। छात्र निष्क्रमण तथा शिक्षा में क्षति को रोकने तथा प्रारंभिक शिक्षा के सार्वजनीकरण के ध्येय को पूरा करने के लिए विद्यालयी शिक्षा को रुचिकर तथा प्रभावशाली बनाना आवश्यक है। आवश्यकता इस बात की भी है कि सीखने की क्रिया को प्रभावयुक्त, वास्तविक एवं अर्थपूर्ण बनाया जाए ताकि माता-पिता/अभिभावक को बच्चों को विद्यालय में भेजना लाभप्रद प्रतीत हो साथ ही जो बच्चे विद्यालय में आ गए हैं उन्हें विद्यालय में रहना अच्छा लगे और वे कुछ सीखने के लिए प्रेरित हों। सीखने की क्षमता न केवल शैक्षिक उपलब्धि एवं बौद्धिक विकास को वरन सांवेगिक, सामाजिक यानी संपूर्ण व्यक्तित्व-विकास को प्रभावित करती है, अर्थात सीखने संबंधी कौशलों के अभाव में विद्यार्थी अनेक भावात्मक एवं सांवेगात्मक मनोग्रन्थियों के शिकार हो सकते हैं। सीखने में अक्षम बच्चे अच्छे सामाजिक संबंध भी स्थापित नहीं कर पाते। विद्यालयी स्तर पर सीखने में अक्षमता सबसे अधिक अवस्तर शैक्षिक उपलब्धि के रूप में सामने आती है।

शैक्षिक उपलब्धि का स्कूली शिक्षा के बाद के प्रशिक्षण, उच्चशिक्षा तथा व्यावसायिक चुनाव से गहन संबंध है। जिन विद्यार्थियों की शैक्षिक उपलब्धि विद्यालय के प्रारंभ से लेकर उच्चतर माध्यमिक स्तर तक प्रायः उच्च स्तर की ही रही है उनके विषय में कॉलेज तथा विश्वविद्यालय की शिक्षा तथा डिग्री स्तर के उच्चस्तरीय व्यवसायों में सफलता की भविष्योक्ति की जा सकती है। ऐसे विद्यार्थी जिनकी शैक्षिक उपलब्धि उनकी मानसिक क्षमता से कम है प्रायः अप्रभावकारी सीखने की विधियों के प्रयोग व अन्य प्रभावों के कारण अपनी क्षमताओं के अनुरूप उपलब्धि नहीं कर पाते। इस प्रकार के कुछ कारकों की चर्चा अब हम यहाँ करेंगे।

सीखने में प्रभावकारी कारक

सीखने की क्रिया को प्रभावशाली बनाने के लिए अध्यापकों को उन सभी कारकों के महत्व को समझना आवश्यक है जो सीखने की क्रिया को प्रभावित करते हैं।

मनोवैज्ञानिकों द्वारा जानवरों पर किए गए परीक्षणों द्वारा देखा गया है कि सीखने की क्रिया यदि किसी लक्ष्य की ओर केन्द्रित हो तो कठिन क्रियाएँ भी सरलता से सीखी जा सकती हैं। इनमें मनोवैज्ञानिक स्किनर तथा कोहलर द्वारा किए गए परीक्षण उल्लेखनीय हैं। इनके अनुसार यदि विद्यालय के अनुभव व क्रियाएँ विद्यार्थियों की आवश्यकताओं की पूर्ति में सहायक हों तो उन्हें सीखने के लिए प्रेरित किया जा सकता है।

प्रत्येक व्यक्ति की शारीरिक और मानसिक क्षमताएँ उसकी सीखने की क्षमता को प्रभावित करती हैं। इसलिए यदि पठनविधि, पठनसामग्री अथवा अन्य कोई भी क्रिया विद्यार्थी की क्षमता व रुचि के अनुकूल नहीं है तो संभव है उसकी क्षमता के अनुरूप व्यवहार में परिवर्तन न हो पाए और न ही वह किसी कौशल और ज्ञान को भली भाँति अर्जित कर पाए। बच्चा कितना सीखता है, क्या सीखता है यह इस पर भी निर्भर है कि

उसमें उस कार्य अथवा क्रिया को करने की प्रेरणा है या नहीं।

विद्यालय में अध्यापक का उद्देश्य है व्यवहार का परिष्कार करना तथा उसे समाज सम्मत बनाना ताकि बालक/बालिकाएँ समाज में एक उपयोगी एवं संतुलित जीवन बिता सकें। अध्यापकों के सम्मुख यही एक प्रश्न है कि सीखने की प्रक्रिया से अथवा स्कूल के क्रिया कलापों से विद्यार्थी के व्यवहार में किस प्रकार के अपेक्षित परिवर्तन लाए जाएँ ताकि उसकी उपलब्धियाँ, उसकी क्षमताओं के अनुरूप हों। व्यवहार में परिवर्तन लाने की इसी क्रिया को सीखने की संज्ञा दी गई है। मनोवैज्ञानिक स्किनर के अनुसार "व्यवहार अर्जन में उन्नति की प्रक्रिया को सीखना कहते हैं"। मनोवैज्ञानिक जी.डी. वॉज के अनुसार "सीखना एक प्रक्रिया है जिसके द्वारा व्यक्ति विभिन्न आदतें, ज्ञान एवं दृष्टिकोण सामान्य जीवन की माँगों की पूर्ति के लिए करता है।"

उद्देश्य

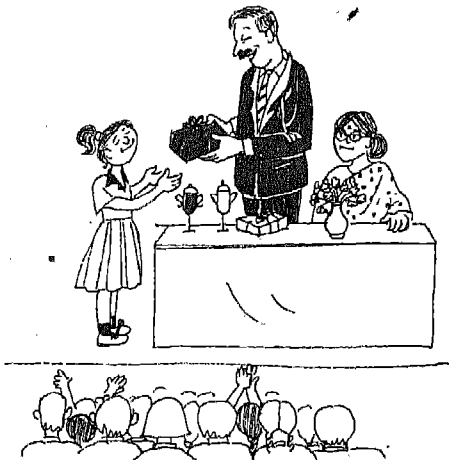
किसी भी कार्य को शीघ्रता से सीख पाने के लिए उद्देश्य का स्पष्ट होना आवश्यक है। बच्चा उस क्रिया को नहीं सीखना चाहता जो उसके किसी उद्देश्य की पूर्ति न करती हो। विद्यार्थी परीक्षा के निकट तो रात-रात भर पढ़ते हैं क्योंकि उस समय उनका उद्देश्य परीक्षा में अच्छे अंक प्राप्त करना है परंतु यही विद्यार्थी विद्यालय की दिन प्रतिदिन की शिक्षा संबंधी एवं अन्य क्रियाओं को सीखने में विशेष तत्परता नहीं दिखाते क्योंकि अधिकतर विद्यार्थियों को विद्यालय के विभिन्न पाठ्यविषयों एवं कार्यक्रमों के उद्देश्यों की कोई जानकारी नहीं होती। इन सबका उनके व्यक्तित्व-विकास एवं जीवन से क्या संबंध है इसका उन्हें स्पष्ट ज्ञान नहीं होता। इसलिए किसी भी विषय का व्यक्तित्व-विकास में तथा जीवन-समस्याओं को समझने एवं उनका हल निकालने में क्या महत्व है इसे विद्यार्थियों को समझाना अत्यंत आवश्यक है।

अभिप्रेरणा–लक्ष्य को पाने की इच्छा सीखने के लिए प्रेरणा उत्पन्न करती है। अभिप्रेरणा विद्यार्थी में क्रियाशीलता तथा उत्साह उत्पन्न करती है और लक्ष्य-प्राप्ति तक ले जाती है। लक्ष्य की स्पष्टता तथा विद्यालय के क्रियाकलापों का रुचिकर होना बच्चों को सीखने के लिए प्रेरित करने में सहायक होते हैं।

दर्शकों से प्रेरणा पाकर खिलाड़ी मैच में कुशलता का प्रदर्शन करते हैं। शिक्षण की सफलता के लिए आवश्यक है कि छात्र नवीन ज्ञान पाने के लिए प्रेरित हों। यदि शिक्षक को छात्र के पूर्व-ज्ञान के स्तर तथा उसके सामाजिक परिवेश की कुछ जानकारी हो तो वे पाठ्यचर्या को वास्तविक एवं अर्थपूर्ण बना सकेंगे और तभी विद्यार्थी उससे कुछ सीखने के लिए प्रेरित हो सकेंगे।

पुनर्बलन– जब किसी कार्य द्वारा सुख, संतोष व आनंद की प्राप्ति होती है तो उसे फिर से करने की इच्छा की संभावना बढ़ जाती है जिससे व्यवहार की कुशलता भी बढ़ती है। पुरस्कार, दण्ड, परिणाम का ज्ञान आदि पुनर्बलन का काम करते हैं। स्किनर, थार्नडाइक आदि मनोवैज्ञानिकों ने भी अपने प्रयोगों द्वारा सिद्ध किया कि यदि कोई क्रिया संतोष प्रदान करती है तो उससे सीखने की क्रिया को बल मिलता है। थार्नडाइक ने सीखने की क्रिया के प्रभाव को स्थायी रूप देने के लिए प्रोत्साहन तथा प्रेरणा की भी बात की। अतः अध्यापकों को विद्यालय में ऐसी विधियाँ अपनानी चाहिए जिनसे छात्रों को संतोषप्रद अनुभव प्राप्त हो जैसे विद्यार्थियों के कार्यों का मूल्यांकन करते समय प्रशंसा, प्रोत्साहन आदि का अधिक से अधिक प्रयोग किया जाय।

पुरस्कार पाने का आनंद
सीखने वाले की सीखने
की तत्परता को बढ़ा देता है

संगठन– सीखने की क्रिया के विभिन्न अंगों का संगठन नए ज्ञान को पूर्वज्ञान से जोड़ने के लिए किया जाता है। कोई भी नई सीखी जाने वाली क्रिया पुराने अनुभवों से प्रभावित होती है। व्यक्ति नई परिस्थिति या उससे प्राप्त ज्ञान का लाभ पूर्व अर्जित ज्ञान व अनुभव के आधार पर करता है। इसलिए किसी भी नए विषय को पढ़ाने के पूर्व उसका पहले पढ़ाए गए विषय से संबंध जोड़ना आवश्यक है।

थार्नडाइक ने कुछ अन्य नियमों जैसे शारीरिक और मानसिक तत्परता, सीखने की क्रिया का मानसिक स्तर के अनुकूल होना आदि कारकों का भी उल्लेख किया है जिसकी चर्चा हम पहले कर चुके हैं।

शिक्षण विधि– शिक्षण-विधि का प्रभाव अमिट होता है। छोटी उम्र के बच्चों के लिए खेल विधि, क्रिया द्वारा सीखना आदि का अत्यंत महत्व है। कहानियों, संगीत कविताओं तथा नाटक द्वारा इस स्तर पर विद्यालय के पाठ्यक्रम को और भी रुचिकर बनाया जा सकता है।

पाठ्य सामग्री– यदि पाठ्यक्रम को "सरल से कठिन की ओर" के सिद्धान्त के आधार पर संगठित किया गया है तो वह सीखने में सहायक होगा। छोटी उम्र के बच्चों के लिए पठन सामग्री का मातृभाषा में उपलब्ध होना, सीखने की क्रिया को और सरल बना सकता है साथ ही पठन सामग्री यदि बच्चों की मानसिक तत्परता, आवश्यकताओं, क्षमता, और रुचियों को ध्यान में रखकर बनाई जाए तो वह और भी प्रभावकारी सिद्ध होगी।

कार्य का समय और विश्राम– सीखने की क्रिया में समय निर्धारण तथा समय पर विश्राम देने से अधिक सफलता मिलने की संभावना होती है। अभिभावक तथा माता-पिता बच्चों को पढ़ने के लिए समयसारणी बनाते समय खेल तथा विश्राम के लिए पर्याप्त समय का प्रावधान करने का सुझाव दें। विद्यालय में भी पढ़ाई, खेल, तथा विश्राम का उचित समन्वय होना चाहिए।

उचित वातावरण–यहाँ हमारा तात्पर्य बाह्य तथा आंतरिक दोनों प्रकार के वातावरण से है। कक्षा में प्रकाश तथा वायु का प्रबंध, सफाई आदि बाहरी वातावरण को बनाते हैं। इसी प्रकार बच्चे का

सीखने के लिए शारीरिक तथा मानसिक रूप से तैयार होना तथा कक्षा में भयरहित एवं चिन्तारहित वातावरण का होना सीखने के लिए आंतरिक वातावरण बनाते हैं।

जिन कारकों का हमने उल्लेख किया है उनके आधार पर यदि विद्यालय में शिक्षा तथा अन्य क्रियाओं का प्रावधान किया जाय तो संभव है विद्यार्थी विद्यालय के अनुभवों से अधिक से अधिक लाभ उठा पाएँ।

इन्हीं कारकों को आधार मानकर नीचे कुछ सुझाव दिए गए हैं। शिक्षक यदि इन्हें अपनाने का प्रयास करें तो वे संभवतः विद्यार्थियों की सीखने की प्रक्रिया को सहज बना सकेंगे।

- बच्चों के लिखने, पढ़ने तथा अन्य क्रियाओं को प्रारंभ करने के पूर्व उनकी शारीरिक और मानसिक तत्परता की जानकारी का होना।
- बच्चों के व्यक्तिगत भेदों को जानना अर्थात उनकी रुचियों, योग्यताओं, क्षमताओं एवं संप्राप्ति आदि की जानकारी होना।
- बच्चों की सामाजिक-पारिवारिक पृष्ठभूमि को जानना।
- प्रारंभिक स्तर पर विद्यालय के अनुभवों का नवीन एवं रोचक ढंग से प्रस्तुत किया जाना, ताकि बच्चों को उनमें आनंद का अनुभव हो। इससे उनमें कुछ सीखने व जानने की इच्छा, सहज जिज्ञासा और कौतूहल को बढ़ावा मिलेगा। वे अपने आसपास के वातावरण को जानने व समझने के लिए स्वयं प्रयास करेंगे तथा अपनी क्षमताओं के विकास के लिए प्रेरित होंगे।
- विद्यालय की विभिन्न क्रियाओं में बच्चों की आवश्यकताओं और सामाजिक परिवेश को ध्यान में रखना।
- बच्चों को खेल द्वारा तथा क्रियाओं द्वारा सीखने के अवसर प्रदान करना।
- छात्रों को विभिन्न समस्याओं पर चिंतन के अवसर प्रदान करना।

शिक्षण में इन कारकों को सम्मिलित किए जाने के फलस्वरूप संभव है मंदगति से सीखने वाले तथा अवर उपलब्धक बच्चों की शैक्षिक उपलब्धियाँ में भी सुधार हो सके। पढ़ाते समय शिक्षक यह भी जानने का प्रयत्न करें कि विद्यार्थी अपनी चिन्तन एवं तर्क शक्ति, स्मरण शक्ति तथा अन्य संवेदन एवं प्रत्यक्षबोधात्मक क्षमताओं का प्रयोग स्कूल में लिखने-पढ़ने तथा अन्य क्रियाओं के सीखने में किस प्रकार कर रहे हैं? शोध द्वारा ज्ञात होता है कि माता-पिता की शिक्षा, घर की शिक्षा संबंधी सुविधाओं एवं आदतों, शारीरिक स्वास्थ्य एवं आत्मधारणा आदि का विद्यार्थी की शैक्षिक उपलब्धि पर महत्वपूर्ण प्रभाव पड़ता है। विशेषकर निम्न सामाजिक-आर्थिक स्तर से आए हुए विद्यार्थियों के लिए विद्यालय में चिकित्सा एवं स्वास्थ्य सेवा तथा स्वास्थ्य, एवं पौष्टिक आहार संबंधी जानकारी उनके मानसिक, शारीरिक एवं शैक्षिक विकास में अत्यंत सहायक सिद्ध हो सकती है।

जरा सोचिए

जिस विषय को आप पढ़ा रहे हैं उसे किस प्रकार आप खोज विधि अथवा क्रियात्मक विधि द्वारा पढ़ा सकते हैं? बालकों में चिन्तन शक्ति के विकास के लिए आप क्या-क्या कर सकते हैं?

अध्ययन संबंधी आदतें– माता-पिता एवं बच्चों को प्रभावकारी अध्ययन संबंधी आदतों से अवगत

कराया जाए ताकि शिक्षक विद्यार्थियों में जीवन के प्रारंभिक वर्षों से ही पढ़ने के सही तरीकों का विकास कर सकें। इससे संबंधित कुछ मुख्य बातें इस प्रकार हैं :—

- बच्चों को याद करने या रटने के स्थान पर सोच समझकर पढ़ने तथा उत्तर देने के लिए प्रोत्साहन करना।
- बच्चों को पुस्तकालय में विभिन्न प्रकार की पुस्तकों, पत्र-पत्रिकाओं को उपलब्ध कराना तथा उनके चयन करने में सहायता देना।
- शब्दकोश की सहायत से शब्दज्ञान बढ़ाने के लिए प्रोत्साहन देना।
- पढ़ने के लिए उपयुक्त प्रकाश, स्वच्छ वायु तथा शांत वातावरण का महत्व बताना।
- पढ़ने के लिए किसी एक निश्चित स्थान का महत्व बताना जहाँ सभी पठन-सामग्री रखी जा सकें।
- विद्यार्थी की पठनगति तथा शब्दों के ठीक उच्चारण कर पाने की क्षम्ता की जानकारी होना।
- बच्चे द्वारा शब्दों को सही तथा सामान्य गति से लिखे जाने पर महत्व देना।
- बच्चों को नियमित रूप से तथा समय-सारिणी बनाकर पढ़ने के महत्व को बताना।
- बच्चों को शब्दों के अर्थ और उनके उचित प्रयोग के लिए पर्याप्त अभ्यास देना तथा नये शब्दों को याद करवाकर शब्द भंडार का विकास करना।
- बच्चों में समझ कर पढ़ने की आदत डालना। इसके लिए पढ़ी हुई वस्तु का सारांश लिखवाना अथवा उसकी चर्चा करना।

सीखने से सम्बन्धित कठिनाइयाँ

मनोवैज्ञानिकों ने स्कूल की पढ़ाई तथा अन्य क्रियाओं से अरुचि से संबंधित कुछ अन्य दोषों का उल्लेख किया है जिनके कारण बहुत से बच्चे स्कूली शिक्षा से पूरा लाभ नहीं उठा पाते व कक्षा में अपनी आयु के दूसरे बच्चों की तुलना में सामान्य गति से लिख, पढ़ व समझ नहीं पाते। इन्हें गणित के प्रश्नों को हल करने में भी कठिनाई होती है जिसके फलस्वरूप ये बच्चे अपनी क्षमताओं के अनुरूप उपलब्धि नहीं कर पाते। बहुत से

जरा सोचिए

अपने स्कूली जीवन के प्रारंभिक वर्षों की याद करिए। किस प्रकार के अनुभवों, अन्य व्यक्तियों के व्यवहार व अन्य सुविधाओं ने आपकी सीखने की क्षमता को बढ़ावा दिया। एक शिक्षक की दृष्टि से अब आप उन अनुभवों व अपनी शैक्षिक उपलब्धियों में क्या संबंध देखते हैं?

बच्चे प्रारंभिक कक्षाओं में ही वार-वार अनुत्तीर्ण होने के कारण स्कूल छोड़ देते हैं। यदि वे विद्यालय में रहते भी हैं तो वे कक्षा के कार्यों में विशेष रुचि नहीं दिखाते। स्कूली कार्यों में इस प्रकार की कठिनाइयाँ प्रायः "सीखने से संवंधित विकलांगता" अथवा "अधिगम संवंधी विकलांगता" के कारण होती है।

इन वच्चों की वौद्धिक क्षमता सामान्य वच्चों के समान ही होती है। इनमें प्रायः पढ़ने, लिखने, समझने, अपने को भली प्रकार अभिव्यक्त न कर पाने, याद न कर सकने, क्षण भर के लिए भी शांत होकर बैठ न पाने आदि जैसी समस्याएँ होती हैं। ये कठिनाइयाँ किसी प्रकार के मानसिक पिछड़ेपन अथवा शारीरिक दोप के कारण नहीं होतीं वरन परंतु चिन्तन, तर्क, स्मरण तथा अन्य संज्ञानात्मक क्षमताओं से संवंधित मस्तिष्क के विभिन्न भागों में किसी गड़वड़ी के कारण होती हैं। यह विकलांगता आनुवंशिक कारणों, सांवेगिक परेशानियों तथा कठिनाइयों के कारण हो सकती है। यहाँ देश के मानसिक स्वास्थ्य संवंधी आँकड़े देना संभव नहीं है। कुछ सर्वेक्षणों के अनुसार हमारे देश की आवादी की 2% जनसंख्या किसी न किसी विकलांगता से ग्रस्त है। इनमें से किस सीमा तक यह विकलांगता अधिगम संवंधी तथा व्यावहारिक कारणों से है इस विषय में भी विश्वसनीय आँकड़े उपलब्ध नहीं हैं। जामिया मिलिया इसलामिया स्थित, वाल निर्देशन चिकित्सालय द्वारा देहली के 17 प्राथमिक विद्यालयों में किए गए सर्वेक्षण में, बच्चों में अधिगम संवंधी विकलांगताएँ काफी सीमा तक पाई गई और यह छात्र निष्क्रमण का एक वहुत वड़ा कारण भी माना गया। इन बच्चों को एक विशेप कार्यक्रम द्वारा सहायता दी गई जिसमें वैयक्तिक स्तर पर पढ़ने, लिखने तथा गणित संवंधी सहायता दी गई जिसके फलस्वरूप बच्चों की कक्षा में सीखने की क्षमता व तत्परता तथा शैक्षिक उपलब्धि में सुधार पाया गया।

ऐसे अध्ययन तथा अन्य तथ्यों के आधार पर सम्भवतः यह कहा जा सकता है कि बच्चों की सीखने की क्षमता, तत्परता तथा सीखने की विधियों में विभिन्नता होती है। विद्यार्थी की सीखने की क्षमता किस स्तर की है तथा उसमें लिखने, पढ़ने, अभिव्यक्त कर पाने, अंकों के साथ काम कर पाने आदि के लिए किन आधारभूत कौशलों का विकास हुआ है ऐसी जानकारी के आधार पर इन कमियों को दूर करने के लिए शिक्षक विशेष रूप से प्रयास कर सकते हैं। इस प्रकार विद्यालय में ऐसे विद्यार्थियों की शैक्षिक तथा अन्य क्रियाओं में रुचियों का विकास तथा शैक्षिक उपलब्धियों में सुधार लाया जा सकता है। इन प्रयत्नों के फलस्वरूप वच्चों को सांवेगिक परेशानियों तथा अनेक मनोग्रन्थियों से भी बचाया जा सकता है। संभव है इससे उनकी गिर हो गई आत्मधारणा में भी वृद्धि और सुधार हो सके।

आइए देखें कि विद्यार्थियों में अधिगम संबंधी कठिनाइयाँ किस-किस प्रकार की होती हैं।

शब्द अंधता– शब्दों और अक्षरों को सही-सही पढ़ व लिख न पाना। लिखते समय अक्षरों को उलट कर पला व लिखना जैसे "कल" को "लक", "रमन" को "मरना" आदि। पढ़ते समय अक्षरों को छोड़ देना आदि।

समझने तथा अभिव्यक्त करने में कठिनाई– इस प्रकार के दोषों से ग्रस्त बच्चे पढ़ी गई, लिखी गई तथा सुनी गई सामग्री को ठीक प्रकार से समझ नहीं पाते। यहाँ तक कि उन्हें संकेत तथा हावभाव को समझने, तथा भाषा को स्पष्ट तथा प्रभावपूर्ण ढंग से बोलने में भी कठिनाई हो सकती है।

संख्या संबंधी कठिनाई– कुछ बच्चों को अंकों के चिह्नों को समझने तथा उनके संबंधों को समझने में कठिनाई होती है। गणित के जिन प्रश्नों को सामान्य बच्चे आसानी से कर लेते हैं इन्हें करने में भी इन बच्चों को कठिनाई हो सकती है। इस तरह के बच्चे जोड़ने, घटाने आदि में गलतियाँ करते हैं। प्रारंभिक स्तर पर इन कठिनाइयों की पहचान कर लेने पर इनको दूर किया जा सकता है।

स्मरण संबंधी, ध्यान संबंधी, व्यवस्थित एवं संगठन करने संबंधी कठिनाइयाँ– कुछ बच्चे स्मरण की गई वस्तु को फिर से याद करने, देर तक ध्यान लगाने, कैसी भी सीखे गए कार्य को क्रमानुसार न बता पाने या लिख पाने, काम को व्यवस्थित व संगठित न कर पाने जैसी कठिनाइयों से भी ग्रस्त रहते हैं।

सामान्य कक्षाओं में इन कठिनाइयों का अनुभव करने वाले बच्चों को शिक्षक वैयक्तिक रूप से सहायता प्रदान करें। जिन बच्चों में थोड़ा-बहुत प्रयत्न करने से सुधार न हो तो शिक्षक विशेष आवश्यकता वाले बच्चों के हेतु प्रशिक्षण प्राप्त मनोवैज्ञानिक की सहायता लें अथवा ऐसे बच्चों को इस प्रकार की सहायता देने वाले बाल निर्देशक चिकित्सालय (Child GuidanceClinic) में भेजें।

सीखने में कठिनाइयों के निदान के कुछ उपाय

सीखने से संबंधित कठिनाइयों को अनुभव करने वाले बच्चों के लिए सामान्य कक्षा में ही शिक्षण-विधि तथा पाठ्यक्रम में बदलाव के प्रयत्न किए जाने चाहिए। लिखाई, पढ़ाई तथा अंकों से संबंधित कठिनाइयों को दूर करने के लिए बहु-इन्द्रिय उपागम (Multi-Sensory Approach) का प्रयोग किय जाना चाहिए जिसके अंतर्गत कुछ क्रियाओं के लिए सुझाव इस प्रकार हैं।

- विशेष अक्षरों को पहचानने व लिखने के लिए बच्चों को अभ्यास कराया जाए जैसे, मोटे व रंग बिरंगे कागज की सहायता से विविध आकार, रंग रूप वाले अक्षरों को काट कर एक कपड़े के थैले में डालें। बच्चे काटे हुए अक्षरों को छूकर अक्षरों को पहचानने का प्रयास करें। कुछ अक्षरों को बच्चे स्वयं अंकित करके काटें अथवा, रंगीन कागज पर चिपका कर काटें।
- अक्षर को पहचानने व सही उच्चारण के साथ अक्षर को स्पर्शेन्द्रिय द्वारा अनुभव भी करायें। बच्चे को आँखें मूँद कर त्वचा पर अंकित किए जाने वाले अक्षरों की पहचान करने के लिए कहा जाय।
- बच्चों को छोटे-छोटे समूहों में उनकी क्षमता के अनुरूप कार्य दिए जाएँ जहाँ वे एक से सुनाई पड़ने वाले शब्दों का उच्चारण करके अभ्यास करें।
- जिन बच्चों में ध्यान की कमी है उन्हें लगातार व्यस्त रखा जाए। उनके लिए ऐसी क्रियाओं का भी प्रावधान हो जिनमें शारीरिक शक्ति का अधिक से अधिक प्रयोग हो।
- भाषा से संबंधित अन्य कमियों को दूर करने के लिए बच्चों को अपूर्ण शब्द अथवा अर्द्धपूर्ण शब्दों को लिखकर दिया जाय जिन्हें बच्चे पूरा करें जैसे–"राम विद्या–य से च–ता हुआ घ– की ओ–जाता है"। यहाँ इस वाक्य में छूटे गए अक्षरों को लिखकर या बोलकर शब्दों को पूरा करने के लिए कहा जाए।
- इसके अतिरिक्त एक अनुच्छेद में शब्द

विशेष अथवा अक्षर विशेष को रेखांकित करने के लिए कहा जाय

– एक-एक अक्षर अथवा शद को कई-कई बार लिखवा कर, रेखांकिा करके, वाक्यों में प्रयोग करके, खाली स्थानों को भरने वाले प्रश्नाभ्यास करवाकर, एक अनुच्छेद या कहानी का सारांश लिखवाकर बच्चों के सही पढ़ने व लिखने में सुधार किया जा सकता है।

जो बच्चे गणित में कमजोर हैं उन्हें ठोस पदार्थों, लकड़ी के टुकड़ों, रंगीन कागज से बनाई गई संख्याओं अथवा वास्तविक वस्तुओं की सहायता से जोड़ना, घटाना, गुणा आदि के संप्रत्ययों को समझाने का प्रयास किया जाए। जिस संख्या को पहचानने व लिखने में कठिनाई हो उन्हें विभिन्न आकार व रंगों में बनवाया जाए अथवा लिखने के लिए कहा जाए।

बच्चों को विद्यालय में या बाहर भ्रमण के समय विभिन्न वस्तुओं को दिखाते समय उनके नाम से, क्रिया से, अन्य वस्तुओं के साथ संबंध से परिचित कराया जाय। इससे बालक की किसी वस्तु की ओर ध्यान केन्द्रित कर पाने की क्षमता का भी विकास होगा।

इसी प्रकार ठोस पदार्थों, लकड़ी के टुकड़ों, बिन्दुओं, रेखाओं को जोड़कर किसी अपूर्ण आकृति या तस्वीर को जोड़ने, पूरा करने जैसी क्रियाओं द्वारा बालकों में ध्यान, प्रेक्षण तथा एकाग्रता की क्षमता को बढ़ाया जा सकता है। ये सभी कारक किसी भी सीखने की क्रिया में सहायक पाए गए हैं।

सीखने से संबंधित विकलांगता वाले बच्चों की आत्म धारणा निम्न स्तर की हो सकती है। ऐसे बच्चों के लिए ऐसी गतिविधियों का आयोजन किया जाए जिनसे उन्हें अपनी सीखने की क्षमता व उसमें सफलता का अनुभव हो। बालक ने जितना भी सीखा है उसके लिए उसकी प्रशंसा की जाए और आगे सीखने के लिए प्रोत्साहन दिया जाय।

– विद्यार्थी को अपनी कठिनाइयों और गलतियों को अध्यापक अथवा किसी अन्य विद्यार्थी को समझाने के लिए कहा जाए। अपनी गलतियों के विषय में बताते हुए उसमें उन्हें सुलझाने के लिए अंर्तदृष्टि का विकास होना संभव है। इसी प्रकार अध्यापक भी किसी समस्या को समझाने के लिए उसे करने से पहले बोलकर समझाएँ और उसी समस्या को विद्यार्थी को श्यामपट्ट पर समझाने के लिए कहें।

शिक्षक, विद्यार्थियों को स्वयं को प्रोत्साहित करने के लिए संज्ञानात्मक प्रशिक्षण विधियों को अपनाने के लिए कहें। जैसे—"मैं यह कार्य अवश्य करूँगा/करूँगी या कर सकता/सकती हूँ।" "मुझे परिश्रम करना ही है", "शाबाश, मुझे सही उत्तर मिल गया" आदि। इस तरह अपने विषय में सोचने के तरीकों में परिवर्तन लाकर विद्यार्थियों में सीखने की क्षमता व प्रेरणा को बढ़ाया जा सकता है। शिक्षक माता-पिता को भी इन विधियों से परिचित कराएँ तथा बच्चों में अध्ययन संबंधी सही आदतें डालने के महत्व पर जोर दें। शिक्षक तथा माता-पिता द्वारा पाठ्यविषयी पुस्तकों के अतिरिक्त विद्यालय तथा घर में अच्छी पठन सामग्री उपलब्ध कराने के लिए भी प्रयास किए जाने आवश्यक हैं। इससे विद्यार्थियों में चिन्तन शक्ति, तथा लिखने पढ़ने और सीखने से संबंधित अन्य आधारभूत क्षमताओं को बढ़ावा मिलेगा, जिससे

उनकी शैक्षिक तथा अन्य क्षेत्रों में उपलब्धियों में सुधार होने की संभावना बढ़ेगी।

शैक्षिक उपलब्धि तथा व्यावसायिक चुनाव

हमारी शिक्षा व्यवस्था में विद्यार्थी की शैक्षिक उपलब्धि का उसके द्वारा आगे पढ़े जाने वाले विषयों, तथा व्यवसाय के चुनाव व प्रशिक्षण से महत्वपूर्ण संबंध होता है। शिक्षक, अभिभावक व प्रशासक प्रायः विद्यार्थी की मानसिक क्षमता तथा विशेष योग्यताओं में क्षमताओं का अनुमान उसके विभिन्न विषयों में प्राप्तांकों के आधार पर ही करते हैं। दसवीं कक्षा के बाद विद्यालय में विद्यार्थी को विज्ञान, वाणिज्य अथवा मानविकी संबंधी विषयों में कौन से विषय दिए जाएँगे यह इस बात पर निर्भर है कि उसे इन विषय-क्षेत्रों में दसवीं कक्षा में अन्य विद्यार्थियों की तुलना में किस श्रेणी के अंक प्राप्त हुए हैं। ग्यारहवीं कक्षा में चुने गए विषयों का व्यावसायिक क्षेत्रों से क्या संबंध है यह हम पिछले अध्यायों में देख चुके हैं।

शिक्षक के अनुसार यदि किसी विद्यार्थी की शैक्षिक उपलब्धियाँ उसकी क्षमता के अनुरूप नहीं हैं तो शिक्षक ऐसे विद्यार्थियों की सीखने की क्षमता में सुधार के प्रयास करके उनकी उपलब्धियों में कुछ सीमा तक सुधार ला सकते हैं।

सारांश–अध्याय 9

सीखना किसे कहते हैं?	व्यवहार अर्जन में उन्नति की प्रक्रिया को सीखना कहते हैं। मनुष्य प्रत्येक क्षण वातावरण में विभिन्न परिस्थितियों, व्यक्तियों तथा वस्तुओं से क्रिया-प्रक्रिया करते हुए कुछ न कुछ सीखता है। सीखने के द्वारा ही व्यक्ति के व्यवहार, चिन्तन आदि में परिवर्तन आते हैं जो उसके ज्ञान और कौशल को परिष्कृत करते हैं।
कौन-कौन से कारक सीखने की क्षमता को प्रभावित करते हैं?	किसी भी कार्य को अच्छी तरह सीख पाने के लिए अभिप्रेरणा व उद्देश्य का होना आवश्यक है, पुनर्बलन सीखे गए कार्य के संगठन में सहायक होता है। शिक्षण-विधि, पाठ्यसामग्री, कार्य का समय, उचित वातावरण आदि भी सीखने की क्षमता को प्रभावित करते हैं।
विद्यार्थी की शैक्षिक क्रियाओं में क्षमता को किस प्रकार बढ़ाया जा सकता है?	विद्यार्थियों में अध्ययन संबंधी सही आदतों का विकास कर उनकी शैक्षिक उपलब्धि को बढ़ाया जा सकता है। प्रभावकारी अध्ययन-विधियों, घर व विद्यालय में पढ़ने की सुविधाओं, अच्छे शारीरिक स्वास्थ्य व सकारात्मक आत्मधारणा का शैक्षिक उपलब्धि पर महत्वपूर्ण प्रभाव होता है।
सीखने से संबंधित विकलांगता क्या है?	प्रायः विद्यार्थियों में पढ़ने, लिखने, समझने, अपने को भली प्रकार अभिव्यक्त कर पाने, याद करने तथा अंकों से काम करने संबंधित कठिनाइयाँ होती हैं। ये कठिनाइयाँ किसी प्रकार के मानसिक पिछड़ेपन अथवा शारीरिक दोष के कारण नहीं होतीं वरन चिन्तन, तर्क, स्मरण तथा अन्य संज्ञानात्मक क्षमताओं से संबंधित मस्तिष्क के भागों में किसी गड़बड़ी के कारण होती हैं।

सीखने से संबंधित कठिनाइयों के निदान के लिए सामान्य कक्षा में ही किस प्रकार के उपाय किए जा सकते हैं?	बच्चों में चिन्तनशक्ति तथा पढ़ने लिखने और अन्य आधारभूत क्षमताओं को बढ़ावा देने के लिए बहु-इन्द्रिय उपागमों, संज्ञानात्मक प्रशिक्षण-विधियों, *प्रभावकारी अध्ययन-विधियों आदि का प्रयोग सहायक* सिद्ध हो सकता है।

अभ्यास

1. सीखने वाले से संबंधित ऐसे कौन-कौन से कारक हैं जो सीखने की क्षमता को प्रभावित करते हैं?
2. विद्यालय तथा अध्यापक से संबंधित कौन-कौन से कारक सीखने के वातावरण को बनाते हैं?
3. बच्चों में अच्छी पठन-विधियों के विकास के लिए आप माता-पिता को किस प्रकार के सुझाव दे सकते हैं?
4. "शब्द अंधता" क्या होती है? सामान्य स्तर पर इस कठिनाई से ग्रस्त बच्चों के लिए कक्षा में किस प्रकार के उपाय किए जा सकते हैं?

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हमारा व्यावसायिक जगत

शिक्षको, अब तक आप यह जान गए होंगे कि आप किस प्रकार विद्यार्थियों के बौद्धिक विकास के साथ-साथ उनके सांवेगिक, वैयक्तिक एवं सामाजिक विकास में भी सहायक हो सकते हैं। आपने यह भी देखा कि जीवन में सफलता और सुख-संतोष की प्राप्ति काफी सीमा तक उचित व्यावसायिक विकास पर निर्भर है और वास्तविक आत्म-संबोध, सही दिशा में विकसित योग्यताएँ और रुचियाँ, संबंधित विषयों में पर्याप्त शैक्षिक उपलब्धि आदि इसके प्रमुख अंश हैं। व्यावसायिक विकास व्यक्तित्व-विकास का एक महत्वपूर्ण अंश है, जीवन के प्रारंभिक स्तर पर ही इसकी नींव डालनी आवश्यक है जो विद्यार्थियों में व्यावसायिक जागरूकता लाकर ही संभव हो सकती है। आत्म बोध और कार्यजगत की जानकारी इसके महत्वपूर्ण पहलू हैं।

आगे के कुछ पृष्ठों में हमने कार्यजगत की बहुत सामान्य स्तर की जानकारी दी है। वास्तव में पूरे व्यावसायिक जगत में असंख्य व्यवसाय हैं पर यहाँ हम मोटे तौर पर उन्हीं व्यवसायों की चर्चा करने जा रहे हैं जिनकी जानकारी बालक एवं बालिकाओं को शिक्षा के इस स्तर पर दी जानी वांछनीय है। इस स्तर पर शिक्षकों एवं विद्यार्थियों को इस प्रकार की जानकारी देने का उद्देश्य केवल यह है कि वे न केवल अपने आस-पास के कुछ व्यवसायों के विषय में ही जानें वरन उन अनेक अन्य व्यवसायों के विषय में भी जानें जो कि महत्वपूर्ण हैं। हमारा एक और उद्देश्य यह भी है कि विद्यार्थी, अपनी क्षमताओं और रुचियों वाले कुछ व्यवसाय क्षेत्रों की पहचान कर पाएँ और दसवीं या बारहवीं कक्षा आने तक इनके विषय में और अधिक विस्तृत जानकारी प्राप्त करने का प्रयास कर सकें। यह सूचना कक्षा पाँच से आठ तक के विद्यार्थियों के लिए अधिक उपयोगी सिद्ध होगी। शिक्षक इस जानकारी को संबंधित पाठ्यविषय को पढ़ाते समय तथा कक्षा के बाहर की जाने वाली अन्य क्रियाओं के समय बातचीत द्वारा विद्यार्थियों तक पहुँचा सकते हैं।

प्राथमिक एवं माध्यमिक कक्षा के बच्चों में व्यावसायिक जागरूकता लाने हेतु कुछ सुझाव एवं क्रियाएँ दी गई हैं जिनका आयोजन सहपाठ्यक्रियाओं के अंतर्गत किया जा सकता है।

(1) पाँच से आठ वर्ष के बच्चों को उनके माता-पिता के व्यवसाय से अवगत कराया जाए जिसके लिए बच्चे अपने माता-पिता से उनके व्यवसाय की जानकारी लेकर कक्षा के दूसरे बच्चों को बताएँ।

(2) कुछ और बड़ी उम्र के बच्चे, माता-पिता के व्यवसाय के अतिरिक्त कुछ और जानकारी भी दें जैसे—घर में क्या-क्या काम किए जाते हैं? उन्हें कौन-कौन करता है? और कौन अच्छी तरह कर पाता है आदि। बच्चों को सगे संबंधियों और पड़ोस के व्यक्तियों के व्यवसायों के विषय में भी जानकारी एकत्र करने के लिए कहा जा सकता है। यह जानकारी वे लिखकर अथवा चार्ट पर चित्रों की सहायता से प्रस्तुत करें।

(3) 11-12 वर्ष के बच्चों को कुछ और अधिक जानकारी एकत्र करने के लिए कहा जाय। जैसे वे अपने घर के आसपास समुदाय में काम करने वाले व्यक्तियों के कार्य के विषय में सूचना एकत्र करें। इस सूचना को भी निबंध के रूप में लिखकर अथवा चार्ट या पोस्टर बनाकर आकर्षक ढंग से प्रस्तुत किया जाय। ये सभी चार्ट व पोस्टर कक्षा में या बाहर स्कूल के हॉल या लाइब्रेरी में लगाए जाएँ। विद्यार्थियों को अपनी पसंद के व्यवसायों में काम करने वालों का तथा कार्य परिस्थितियों से संबंधित चित्रों का एलबम बनाने के लिए कहा जाए।

(5) बच्चों को शहर के विभिन्न कार्यस्थलों जैसे पोस्ट ऑफिस, अस्पताल, बस-डिपो, रेलवे-स्टेशन, पुलिस-स्टेशन, दूध की डेरी, कोई फैक्टरी या कारखाना, सरकारी कार्यलय, आकाशवाणी भवन, होटल या रेस्तराँ दिखाने के लिए ले जाएँ। वहाँ काम करने वाले व्यक्ति बच्चों को अपने काम के विषय में जानकारी दें। प्रत्येक भ्रमण के बाद कक्षा में उसकी चर्चा की जाए।

(6) बच्चों को व्यवसाय संबंधी चलचित्र, औद्योगिक प्रदर्शनियाँ, विज्ञान-मेले आदि दिखाने का भी प्रबंध किया जाय, जिससे उन्हें व्यवसाय संबंधी अधिक जानकारी प्राप्त हो सकती है।

(7) विद्यालय के सांस्कृतिक कार्यक्रमों में बच्चों के लिए व्यावसायिक वेशभूषा प्रतियोगिता तथा व्यवसाय संबंधी नाटक या अभिनय प्रतियोगिता का आयोजन किया जाय। माता-पिता विद्यालय में आकर बच्चों को अपने व्यवसाय के विषय में बताएँ।

(8) कहानियों, गीतों तथा नाटकों द्वारा सेवा संबंधी व्यवसायों की उपयोगिता को बताने का प्रयत्न किया जाय जिससे इस प्रकार के व्यवसायों के प्रति उचित प्रवृत्तियों का विकास हो। उदाहरण के लिए सेवा संबंधी व्यवसाय हैं—सफाई कर्मचारी, फलफूल, सब्जी, अनाज उत्पन्न करने तथा बेचने वाले, छोटे दुकानदार, शिल्पकार, घरों में काम करने वाले नौकर, आया, कारखानों में काम करने वाले मजदूर, तकनीकी एवं गैर-तकनीकी कारीगर व मेकेनिक, सुरक्षा कार्य करने वाले गार्ड व चौकीदार, निर्माण-स्थलों पर काम करने वाले मिस्त्री, राज, मजदूर, बिजली के यंत्रों को बनाने तथा मरम्मत करने वाले इलैक्ट्रीशियन, लाइनमैन, घरों में नल, पाइप आदि लगाने वाले प्लंबर, घरों और छोटी फर्नीचर की दुकानों पर काम करने वाले बढ़ई, साइकिल-रिक्शा, ट्रक-स्कूटर चलाने वाले, होटल व रेस्तरां में खाना पकाने वाले रसोइए या वेटर, रेलवे प्लेटफार्म व अन्य स्थानों पर बोझा ढोने तथा सड़क बनाने वाले मजदूर आदि। हमारे देश में बहुत बड़ी संख्या में व्यक्ति इन व्यवसायों द्वारा समाज में व्यवस्था, सुख शान्ति बनाए रखने तथा दूसरों की सेवा करने में सहायक हैं परंतु समाज में इन व्यवसायों और इनमें लगे व्यक्तियों को बहुत

सम्मान नहीं दिया जाता। बच्चों में यह जागरूकता लानी आवश्यक है कि ये सभी कार्यकर्ता समाज को आवश्यक सेवाएँ प्रदान करते हैं। इन आवश्यक सेवाओं के बिना हमारा जीवन अत्यंत कठिन हो सकता है तथा प्रत्येक नागरिक को अत्यधिक असुविधा का सामना करना पड़ सकता है। जैसा कि हम पहले भी कह चुके हैं, इन कार्यों के प्रति प्रवृत्तियों में बदलाव लाने के लिए तथा परिश्रम के प्रति सम्मान की भावना जगाने के लिए बच्चों से विद्यालय के सभी कार्यों में सहयोग लिया जाए जिससे वे हाथों से काम करने व मेहनत करने के महत्व को समझ पाएँ।

विद्यालय में "कार्यानुभव" तथा "व्यावसायिक शिक्षा" के अंतर्गत उपलब्ध विषयों तथा क्रियाओं की सहायता से भी विद्यार्थियों में कार्यसंबंधी मूल्यों, प्रवृत्तियों तथा कौशलों के विकास की जो संभावनाएँ एवं लाभ हैं उनकी चर्चा हम व्यावसायिक विकास प्रक्रिया के संदर्भ में कर चुके हैं। विद्यालयों में अन्य सहपाठ्य क्रियाओं जैसे सांस्कृतिक कार्यक्रमों, शिविर सभाओं, हॉबी-क्लबों, सामुदायिक सेवा कार्यक्रमों आदि का भी इन कार्य संबंधी व्यक्तित्व विशेषताओं के विकास में अत्यंत महत्व है। इसकी चर्चा भी पहले की जा चुकी है।

आगे के उप-अध्यायों में व्यावसायिक जगत के उन असंख्य व्यवसायों की जानकारी दी जा रही है जिन्हें आवश्यकताओं के आधार पर कुछ प्रमुख क्षेत्रों में बाँटा गया है।

कृषि, वानकी, खनन तथा उत्पादन के व्यवसाय

उद्देश्य

इस लेख को पढ़कर आप जान सकेंगे कि

– कृषि, वानकी, खनन तथा उत्पादन के क्षेत्र में कौन-कौन से व्यवसाय हैं।

– इन व्यवसायों में व्यक्ति क्या-क्या कार्य करते हैं।

कृषि

भोजन हमारी आधारभूत आवश्यकता है। मनुष्य का जीवन इसी पर निर्भर है। भोजन की आवश्यकता कृषि संबंधित व्यवसायों द्वारा पूरी होती है। कृषि संबंधित व्यवसायों के विषय में यदि आपसे विचार करने को कहा जाय तो सर्वप्रथम आपका ध्यान कृषक की ओर जाएगा। आज भी हमारे देश में कृषक पुरानी तकनीकी से स्वयं हल जोतकर, बीज बोकर अनाज उगाता है। परंतु आजकल कृषक के अतिरिक्त इस क्षेत्र में अन्य कई व्यक्ति अच्छी किस्म तथा अधिक फसल उगाने में कृषक की सहायता करते हैं जैसे–कई व्यक्ति राजकीय कृषि विभाग में कृषि संबंधी अनुसंधान करते हैं, कृषि की उन्नति के लिए नए साधन निकालते हैं, खेती को नष्ट करने वाले कीटाणुओं से अनाज को बचाने की रीतियों का पता लगाते हैं। इस प्रकार के कार्य करने वालों को 'कृषि अनुसंधान अधिकारी' कहा जाता है। इनकी सहायता के लिए अनुसंधान सहायक भी रखे जाते हैं।

प्रत्येक जिले में एक कृषि अधिकारी तथा कृषि सहायक भी होता है। ये अनुसंधान-कर्ताओं द्वारा प्राप्त किए गए परिणामों को किसानों तक पहुँचाते हैं। ये किसानों को नए प्रयोग करके भी दिखाते हैं जिससे किसान कृषि की नई रीतियों को आसानी से जान सके।

अच्छी किस्म और अधिक फसल उपजाने के लिए मशीनों की आवश्यकता होती है। ये मशीनें बिजली, पानी अथवा पैट्रोल द्वारा चलाई जाती हैं। इस क्षेत्र में प्रगति होने के कारण कृषि इंजीनियर, ट्रैक्टर-ड्राइवर इत्यादि व्यवसायों का भी आविष्कार हुआ है।

कृषि में पशुओं का भी बहुत बड़ा महत्व है। कृषक के लिए गाय, भैंस, घोड़ा, बैल आदि पशु अति आवश्यक हैं। डेरी उद्योग के क्षेत्र में भी उन्नति होने के कारण पशुओं की देखभाल के लिए वेटरनरी डाक्टर की आवश्यकता है। आजकल पशुओं की अच्छी देखभाल तथा चिकित्सा के लिए अस्पताल भी काफी संख्या में खोले जा रहे हैं जहाँ पशुओं का इलाज किया जाता है।

वानकी

वनों के व्यवसाय हमें शहरों और नगरों से दूर वन प्रदेशों में ले जाते हैं। जिस प्रकार हरेक प्रदेश में एक कृषि विभाग होता है उसी प्रकार एक वन विभाग भी होता है। वनों में लकड़ी, कोयला तथा बहुमूल्य खनिज पदार्थ प्राप्त होते हैं। वनों की सुरक्षा और उन्नति के लिए सहायक अधीक्षक, वन अधिकारी तथा वन-पाल आदि पदों पर व्यक्ति कार्य करते हैं।

वन अधिकारी को कुछ क्षेत्रों के वन दे दिए जाते हैं। वे वन क्षेत्रों का निरीक्षण करते हैं तथा समय-समय पर उनकी कटाई, सफाई और नए पेड़-पौधे लगवाने का कार्य करते हैं। यदि पेड़-पौधे किसी बीमारी से नष्ट हो रहे हों तो वे उनकी रक्षा का भी प्रबंध करते हैं। आग लगने पर उसकी फौरन रिपोर्ट करते हैं और दावानल (वन में अग्नि) को रोकने का उपाय करते हैं।

वन संबंधी व्यवसायों में एक महत्वपूर्ण व्यवसाय उद्यानविज्ञ का है। बदलते मौसम के अनुसार समय-समय पर नई-नई किस्म के फल-फूल के पौधे लगाना इनका कार्य होता है। नगर में सड़कों, इमारतों, भ्रमण के स्थानों पर योजनाबद्ध तरीके से बड़े-बड़े उद्यान और पार्क बनाने तथा उनमें फूल-पौधे लगाने का उत्तरदायित्व भी इन्हीं पर होता है। प्रायः यह समझा जाता है कि उनकी सुरक्षा तथा देखभाल केवल माली ही करते हैं परंतु बड़े-बड़े बागों, उद्यानों तथा फलों के बागानों की सुरक्षा एवं देखभाल उद्यानविज्ञ के ही द्वारा की जाती है। फूलों और फलों की किस्म को सुधारने और उनको अधिक मात्रा में उत्पन्न करने में वनस्पति विज्ञान वेत्ता भी अपना योग देते हैं। ये अधिकतर अनुसंधान कार्य करते हैं।

वन विभाग के अंतर्गत ही चिड़ियाघर तथा अजायबघर से संबंधित कार्य भी होते हैं। चिड़ियाघर

संवद्ध क्रिया कलाप

विद्यालय के आसपास किसी फार्म, उद्यान, वन, चिड़ियाघर अथवा अजायबघर में छात्रों को भ्रमण के लिए ले जाएँ जहाँ विद्यार्थियों को वहाँ काम करने वाले व्यक्तियों से बातचीत करने व उनके कार्य के विषय में जानकारी एकत्र करने के लिए प्रोत्साहित करें।

अथवा अजायबघर के अधीक्षक तथा जीवविज्ञान विशेषज्ञ बीमारियों को फैलाने वाले अथवा वस्तुओं को नष्ट करने वाले कीटाणुओं को नष्ट करने का कार्य करते हैं। ये विशेषज्ञ मलेरिया, फाइलेरिया जैसी बीमारियों को फैलने से भी रोकते हैं।

संबद्ध क्रियाकलाप

आपके क्षेत्र में यदि कोई दुग्ध केन्द्र, बेकरी अथवा कोई वस्त्र उत्पादन कारखाना या फैक्टरी हो तो छात्रों को वहाँ काम करने वालों के कार्य से परिचित कराने के लिए भ्रमण के लिए ले जाया जाए। इन कार्य-क्षेत्रों में रुचि रखने वाले थोड़ी बड़ी कक्षाओं के छात्रों को स्वयं वहाँ जाकर सूचना एकत्र करने के लिए प्रोत्साहित करें।

मत्स्य

मात्स्यकी के क्षेत्र में विशेष प्रशिक्षण प्राप्त कर जीवविज्ञान विशेषज्ञ मत्स्य विभाग में प्रशासकीय अधिकारी की तरह अनुसंधान करते हैं तथा इंजीनियर आदि के पद पर काम करते हैं।

डेरी

आजकल हमारे देश के विभिन्न प्रदेशों में सरकार द्वारा दुग्ध योजनाएँ बनाई गई हैं जिनसे मशीनों द्वारा, पैकेटों अथवा बोतलों में दूध जनता तक पहुँचाया जाता है। इस क्षेत्र में डेरी फार्म मैनेजर, सुपरवाइजर, डेरी केमिस्ट, डेरी फैक्टरी इंजीनियर आदि के व्यवसाय आते हैं।

खनन (खान)

उपरोक्त वर्णन से आपको केवल उन व्यवसायों के विषय में जानकारी हुई है जो पृथ्वी पर उत्पन्न होने वाले फलों, फूलों, अनाज तथा जीवजंतुओं से संबंधित हैं। परंतु पृथ्वी के अंदर पायी जाने वाली वस्तुओं से संबंधित व्यवसायों में भी अनेक व्यक्ति काम करते हैं। प्रतिदिन हमारे काम में आने वाली बहुत सी वस्तुएँ लोहा, ताँबा, पीतल, एल्यूमीनियम तथा अन्य वस्तुएँ धातुओं की बनी होती हैं। इसके अतिरिक्त और भी बहुत से पदार्थ, विशेषकर जिन से हमें अग्नि तथा शक्ति मिलती है जैसे पत्थर का कोयला, मिट्टी का तेल आदि भी भूगर्भ से ही प्राप्त होते हैं। अब हम आपको भूगर्भ से प्राप्त होने वाली वस्तुओं से संबंधित व्यवसायों के विषय में बताएँगे। भूगर्भविज्ञानवेत्ता, खनिज पदार्थ एवं तेल निकालने के पूर्व उन स्थानों की खोज करते हैं जहाँ से ये पदार्थ प्राप्त किए जा सकें। उसके उपरान्त पृथ्वी को खोदकर खनिज पदार्थों को बाहर निकालने का काम शॉट फायरर, स्टोनकटर, लोहार, इलैक्ट्रीशियन, टिम्बरमैन तथा खान मजदूरों द्वारा किया जाता है। ये व्यक्ति खान इंजीनियरों, लोकोमॉटिव इंजीनियरों तथा खान निरीक्षकों के निर्देशन तथा सर्वेक्षण में काम करते हैं।

पृथ्वी से निकले हुए पदार्थ कच्ची धातु के रूप में होते हैं। उनको साफ करके परिष्कृत किया जाता है, जिससे हमारे काम में आने वाली वस्तुएँ बनती हैं। मिश्र धातु को बनाने का काम धातुकर्मविज्ञ (मैटलर्जिस्ट) के निर्देशन में होता है।

तेल तथा पैट्रोलियम आजकल के औद्योगिक विकास में एक महत्वपूर्ण खनिज है। इसकी सहायता से असंख्य वाहन जैसे—मोटरें, रेल इंजन और मशीनें

चलती हैं। घरों में स्टोव जलाने के लिए भी तेल की आवश्यकता होती है। तेल से ही गैस प्राप्त होती है जिसका प्रयोग आजकल खाना पकाने तथा कारखानों में भी होता है। तेल को निकालने के लिए—"तेल ड्रिलर" पृथ्वी में छेद करके तेल के कुएँ बनाते हैं। ऑयल टैक्नोलोजिस्ट तेल से विभिन्न अन्य पदार्थों को बनाने का कार्य करते हैं।

शक्ति का दूसरा स्रोत बिजली है। बिजली आधुनिक युग में मूलभूत आवश्यकता बन गई है। घरों में बल्ब, पंखे, रेडियो, रेफ्रिजरेटर, टेलीविजन आदि उपकरण/बिजली द्वारा ही चलते हैं। बिजली से संबंधित इंजीनियर, टैक्नोलोजिस्ट तथा इलैक्ट्रिशियन बिजली के संस्थानों में बिजली के चलाने तथा देखभाल एवं मरम्मत का काम करते हैं। वायरमैन स्विच बोर्ड और बिजली के तारों की स्थापना करते हैं। रेडियो, टेलीविजन तथा रेफ्रिजरेटर आदि के मेकेनिक इन सब यंत्रों की मरम्मत का कार्य करते हैं।

उत्पादन

अभी तक हमने आपको कच्चे रूप में पायी जाने वाली धातुओं तथा अन्य वस्तुओं से संबंधित व्यवसायों के विषय में कुछ जानकारी दी। उत्पादन के द्वारा सभी वस्तुएँ कच्चे रूप से उस रूप में परिवर्तित की जाती हैं जिससे हम उन्हें काम में लाते हैं। उत्पादन के द्वारा गेहूँ को आटे के रूप में और फिर डबल रोटी के रूप में परिवर्तित करके खाने के योग्य बनाया जाता है। इसी प्रकार भेड़ों से उतारी गई ऊन तथा खेतों से प्राप्त की गई रूई को मिलों में कपड़े के रूप में परिवर्तित किया जाता है, फिर इस कपड़े से वह वस्त्र बनाए जाते हैं जिनको हम पहनते हैं। इसी प्रकार कच्ची धातु को स्टील में परिवर्तित करके मशीनें बनाई जाती हैं।

सभी प्रकार के उद्योगों में उत्पादन कार्य इंजीनियरों के निर्देशन तथा निरीक्षण में किया जाता है। इंजीनियर विभिन्न प्रकार के होते हैं। "यांत्रिक इंजीनियर" मशीनों का डिजाइन बनाने, उनका निर्माण करने तथा कारखानों में उनकी स्थापना करने में निर्देशन करते हैं। मशीनों की देखभाल और उनकी मरम्मत का कार्य भी उनके द्वारा ही किया जाता है।

मोटर द्वारा चलने वाली गाड़ियों जैसे—मोटर कार, बस, ट्रक, मोटरसाइकिल, स्कूटर, आदि के इंजनों के उत्पादन, तथा मरम्मत का काम करने वाले व्यक्तियों को "ऑटोमोबाइल इंजीनियर" के नाम से पुकारा जाता है। हवा में उड़ने वाले यानों के उत्पादन और मरम्मत का कार्य "एरोनॉटिक इंजीनियर" करते हैं। "केमिकल इंजीनियर" रसायनों को बनाने वाले कारखानों में विभिन्न रसायनों का निर्माण करते हैं। "कैमिकल टैक्नोलोजिस्ट" रासायनिक तत्वों से पेन्ट वारनिश, प्लास्टिक की वस्तुएँ, खाद आदि के उत्पादन का कार्य करते हैं। इंजीनियर तथा टैक्नोलोजिस्ट के अतिरिक्त मशीनों के बनाने, चलाने और मरम्मत करने का कार्य बहुत से टैक्नीशियन्स द्वारा किया जाता है। टर्नर बोल्ट्स तथा नट आदि बनाने का काम करते हैं। फिटर यंत्रों के विभिन्न भागों को जोड़ने का कार्य करते हैं। मोल्डर पिघली हुई धातु को साँचे में डालकर मशीनों के पुर्जे बनाते हैं। मशीनिस्ट, खुरदरी धातु के टुकड़ों को विभिन्न मशीनों की सहायता से आकृति प्रदान करते हैं। इसी प्रकार वेल्डर, पेटर्नमेकर, लोहार, बढ़ई आदि बहुत से कारीगर धातु एवं लकड़ी की वस्तुएँ बनाने और मरम्मत का काम करते हैं।

अभ्यास

शिक्षक विद्यार्थियों को इस लेख में दी गई सूचना से परिचित कराने के बाद विचार-विमर्श द्वारा अथवा लिखित रूप में निम्नलिखित प्रश्नों के उत्तर प्राप्त करें।

1. कृषि के क्षेत्र में कुछ प्रमुख व्यवसाय कौन-कौन से हैं?
2. वनों की सुरक्षा और उन्नति का उत्तरदायित्व किन-किन व्यक्तियों पर होता है?
3. पृथ्वी के अंदर पाए जाने वाले खनिज पदार्थों को बाहर निकालने का काम किन व्यक्तियों द्वारा किया जाता है?
4. बच्चों को अपने परिवार के या घर के आसपास के कार्यालय या फैक्टरी के इंजीनियर से मिलकर उनके कार्य के विषय में जानकारी प्राप्त करने के लिए कहा जाय।

चिकित्सा, स्वास्थ्य, शिक्षा तथा समाज-सेवा के व्यवसाय

उद्देश्य

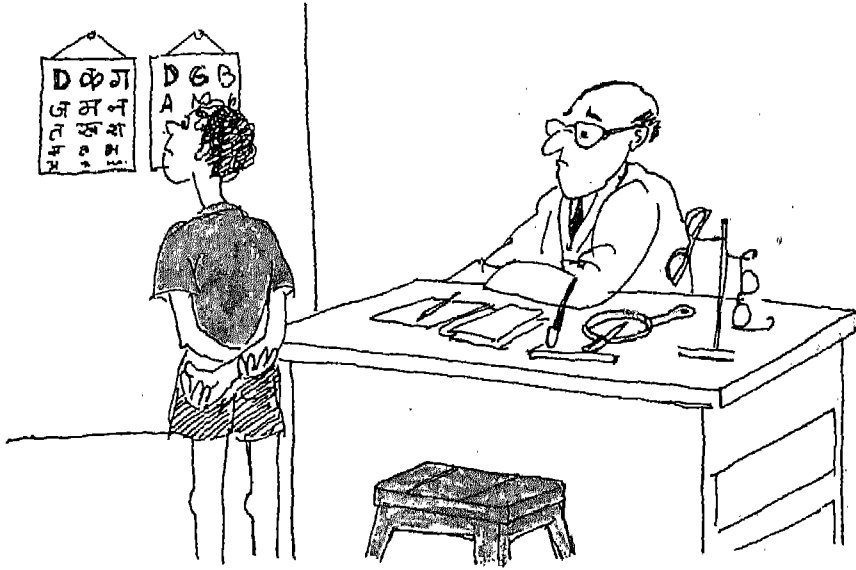
इस लेख को पढ़कर आप जान सकेंगे कि–

- चिकित्सा तथा स्वास्थ्य-सेवा के क्षेत्र में प्रमुख व्यवसाय कौन-कौन-से हैं?
- अध्यापक का क्या कार्य है तथा वे किन-किन स्तरों पर कार्य करते हैं?
- शिक्षा निदेशालय, पुस्तकालय तथा लेखन के क्षेत्रों में कौन-कौन-से व्यवसाय हैं?
- समाज-सेवा के क्षेत्र में प्रमुख व्यवसाय क्या-क्या हैं?

चिकित्सा तथा स्वास्थ्य-सेवा

बीमार होने पर हम सभी चिकित्सक के पास जाते हैं। इसलिए आप डॉक्टर, कंपाउंडर तथा नर्स के नाम से तो परिचित ही होंगे। ये चिकित्सा तथा स्वास्थ्य-सेवा के क्षेत्र के तीन प्रमुख व्यक्ति हैं जबकि इस क्षेत्र में अनेक अन्य व्यक्ति भी कार्य करते हैं। प्रायः डॉक्टर छोटी-छोटी दिन-प्रतिदिन होने वाली बीमारियों (जैसे—खाँसी, जुकाम, बुखार आदि) का इलाज करते हैं परंतु जब कोई बड़ी बीमारी होती है तो रोगी को विशेषज्ञ से परामर्श करना पड़ता है। विशेषज्ञ विभिन्न प्रकार के परीक्षणों द्वारा रोग का पता लगाते हैं और उसके निदान के विषय में भविष्योक्ति भी करते हैं।

विभिन्न बीमारियों तथा विशेष अंगों के इलाज के लिए अलग-अलग विशेषज्ञ होते हैं। हृदय-विशेषज्ञ (कारडियोलोजिस्ट) हृदय की बीमारियों का इलाज करते हैं। चर्म-विशेषज्ञ (डर्मेटोलोजिस्ट) चर्म रोगों की चिकित्सा करते हैं। नाड़ी संबंधी रोगों की चिकित्सा करने वाले नाड़ी-विशेषज्ञ (न्यूरोलोजिस्ट) के नाम से जाने जाते हैं। मनोचिकित्सक (साइकोलोजिस्ट) मानसिक रोगों की चिकित्सा करते हैं। बच्चों की चिकित्सा करने वाले बाल-रोग-चिकित्सक (पीडियाट्रीशियन) कहलाते हैं। स्त्री-रोग-विशेषज्ञ (गाइनोकोलोजिस्ट) स्त्री रोगों की चिकित्सा करते हैं। इसी प्रकार नाक, कान तथा गले से संबंधित रोगों के विशेषज्ञ होते हैं। नेत्र-रोग-विशेषज्ञ (औप्थेलमॉलोजिस्ट) आँखों का निरीक्षण करके चश्मे की आवश्यकता का पता लगाते हैं और शीशे का नंबर देते हैं। कुछ अन्य प्रकार के चिकित्सक भी होते हैं जो शरीर के कुछ विशेष अंगों की चिकित्सा करते हैं जैसे—दंत-चिकित्सक (डेंटिस्ट) आदि।

कुछ चिकित्सक, रोगों का पता लगाने तथा ऑपरेशन करने में विशेषज्ञों की सहायता करते हैं। रोगविज्ञानी (पैथोलोजिस्ट) रक्त, मल-मूत्र, थूक आदि का परीक्षण कर रोग के निदान में सहायता करते हैं। इसी प्रकार रेडियोलोजिस्ट एक्स-रे द्वारा शरीर के भीतरी अंगों का चित्र खींचकर तथा उसकी सहायता से शरीर के भीतरी अंगों की दशा से विशेषज्ञ को परिचित कराते हैं।

शल्य विशेषज्ञ ऑपरेशन द्वारा रोगी का इलाज करते हैं। जिस प्रकार विभिन्न अंगों तथा रोगों के चिकित्सक होते हैं, उसी प्रकार शल्य-विशेषज्ञ भी होते हैं। कुछ हृदय के, कुछ आँख के और कुछ अन्य अंगों के भी शल्य-विशेषज्ञ होते हैं। शल्य-चिकित्सा में अनस्चेतक (अनस्थिसिस्ट) रोगी को ऑपरेशन के समय बेहोश करने का कार्य करते हैं।

चिकित्सा की तीन प्रमुख प्रणालियाँ हैं। आधुनिक वैज्ञानिक-रीति को "एलोपैथी" कहते हैं। इस प्रणाली के चिकित्सकों को "ऐलोपैथ" के नाम से जाना जाता है। हमारे देश की पुरानी चिकित्सा-प्रणाली आयुर्वेदिक प्रणाली है। इस विधि से चिकित्सा करने वालों को वैद्य कहते हैं। यूनानी रीति से इलाज करने वाले "हकीम" कहलाते हैं। आजकल होम्योपैथिक-प्रणाली भी प्रचलित हो रही है जिसमें रोग के लक्षणों के आधार पर न्यून मात्रा में दवा देकर इलाज किया जाता है। इस प्रणाली के चिकित्सक को 'होम्योपैथ' कहा जाता है। आयुर्वेदिक, यूनानी तथा होम्योपैथिक-चिकित्सा में शल्य-चिकित्सा नहीं के बराबर ही है।

रोगी की देखभाल के लिए, उसको समय-समय पर औषधि देने के लिए और उसकी दशा का ब्यौरा रखने के लिए स्वास्थ्य परिचारिका (नर्स) अस्पतालों, नर्सिंग घरों तथा चिकित्सालयों में काम करती है। नर्स भी कई श्रेणी की होती हैं जैसे—स्टाफ नर्स, वार्ड सिस्टर तथा सहायक मैट्रन।मैट्रन क्रमशः 10 से 12 की संख्या वाले एक वार्ड के रोगियों, अस्पताल की सभी नर्सों का निरीक्षण और पूरे अस्पताल का निर्देशन तथा निरीक्षण का कार्य करती है।

कंपाउंडर तथा फार्मेसिस्ट औषधि और नुस्खों को तैयार करने का कार्य करते हैं। किस औषधि को कब-कब और कितनी मात्रा में लेना है इस विषय में डाक्टर द्वारा दिए गए आदेशों को समझाने का कार्य भी वे करते हैं। कंपाउंडर के कार्य की सहायता के लिए प्रायः चिकित्सालयों तथा डिस्पेंसरीज में एक ड्रेसर भी होता है जो घावों व

चोट पर मरहम-पट्टी करता है, गले में दवा लगाता है, आँख, नाक, कान को साफ करके दवा डालता है। इसी प्रकार टीका (इंजेक्शन) लगाने का कार्य एक विशेष नर्स करती है। छोटे दवाखानों में पट्टी बाँधने और टीका लगाने का कार्य कंपाउंडर ही करते हैं।

अस्पताल में अधिक समय तक रहने वाले रोगियों को उनकी रुचि और आवश्यकतानुसार क्रियाओं में व्यस्त रखकर उनके उपचार में डॉक्टर की सहायता करने वाले को व्यावसायिक-चिकित्सक कहते हैं। जब कभी औद्योगिक संस्थानों में काम करते समय दुर्घटना हो जाने से अथवा बीमारी व अन्य किसी कारणवश किसी व्यक्ति के शरीर के किसी अंग में चोट आ जाती है या कोई अंग कार्य करना बंद कर देता है तो इन रोगियों का भौतिक चिकित्सक इलाज करते हैं। भौतिक चिकित्सक अंग को पुनः सजीव करने के लिए व्यायामों द्वारा खेलकूद, शरीर-मर्दन, बिजली लगाकर तथा गरम पानी की टकोर द्वारा अंग का उपचार करते हैं।

अभी तक आपने स्वास्थ्य के क्षेत्र में उन कर्मचारियों के विषय में जानकारी प्राप्त की जो व्यक्ति के बीमार हो जाने पर उसका उपचार करते हैं। बीमारियों से बचाने का प्रयत्न करने वाले अथवा बीमारी को फैलने से रोकने का प्रबंध करने वाले "स्वास्थ्य-कर्ता" कहलाते हैं। स्वास्थ्य अधिकारी अपने जिले में स्वच्छता रखने के लिए स्वास्थ्य संबंधी कार्यों का निरीक्षण और निर्देशन करते हैं। "सैनेटरी इंसपेक्टर" मकानों, दुकानों, गलियों, होटलों में सफाई रखने के लिए, निरीक्षण

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क्या आप कभी किसी अस्पताल या डिस्पेन्सरी में उपचार के लिए गए हैं? वहाँ किस-किस व्यक्ति ने आपकी उपचार संबंधी सहायता की? आपको इन व्यक्तियों का काम कैसा लगा? इस क्षेत्र से संबंधित व्यवसायों में योग्यता व रुचि रखने वाले विद्यार्थी अपने आसपास इन व्यवसायों में काम करने वाले व्यक्तियों से बातचीत द्वारा शिक्षा, प्रशिक्षण तथा कार्य संबंधी जानकारी प्राप्त करें।

करते हैं। "फूड इंसपेक्टर" होटलों में सफाई रखने के लिए निरीक्षण करते हैं। इसके अतिरिक्त वे होटलों में तथा हलवाइयों की दुकानों में खाने की वस्तुओं का निरीक्षण करते हैं और वहाँ से नमूने एकत्रित करते हैं जिससे यह पता लग जाता है कि भोज्य पदार्थ, शुद्ध सामान और स्वास्थ्यप्रद तरीकों से तैयार किया जा रहा है या नहीं। "पब्लिक हैल्थ इंसपैक्टर" दूध, घी, मक्खन, तेल, पानी आदि की स्वच्छता और शुद्धता को बनाए रखने के लिए निरीक्षण करते हैं। "महिला स्वास्थ्य निरीक्षिका" घरों में जाकर स्वास्थ्य तथा स्वच्छता के संबंध में शिक्षा देती है। "सहायक स्वास्थ्य परिचारिका" तथा "ग्राम सेविका" की सहायता से वह गर्भवती महिलाओं को बच्चों के पालन-पोषण के संबंध में अपने सुझाव देती है तथा उनकी देखभाल करती है।

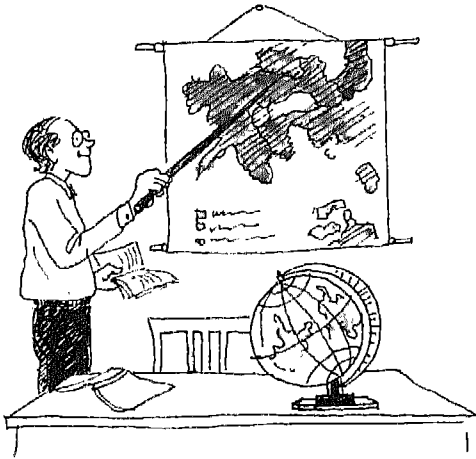
बीमारियों से बचने का एक उपाय टीका लगवाना है। हमारे देश में बच्चों को टायफाइड, हैजा, तपेदिक, डिपथीरिया, काली खाँसी, टिटेनस, पोलियो जैसी बीमारियों से बचने के लिए टीका लगाया जाता है। यह कार्य "वैक्सीनेटर" करते हैं।

हमारे देश में मलेरिया द्वारा भी बहुत से लोग बीमार हो जाते हैं। मलेरिया मच्छरों द्वारा फैलता है। मलेरिया के उन्मूलन के लिए बहुत से निरीक्षक और चिकित्सक कार्य करते हैं।

शिक्षा

देश की उन्नति के लिए शिक्षा प्रत्येक व्यक्ति के लिए अत्यन्त आवश्यक है। शिक्षित नागरिकों पर ही देश की आर्थिक और सामाजिक उन्नति निर्भर है। इसीलिए हमारे देश की सरकार प्रयत्नशील है कि प्रत्येक नागरिक शिक्षित हो। इसके लिए हमारे देश में स्कूल, कॉलेज, विद्यालयों की संख्या में वृद्धि हो रही है और गाँवों में भी विद्यालय खोले जा रहे हैं जिससे प्रत्येक बालक तथा बालिका को शिक्षा की सुविधा प्राप्त हो सके। इसके अतिरिक्त नर्सरी स्कूल, रात्रि के स्कूल और अनपढ़ प्रौढ़ों को शिक्षित करने के लिए अनेक प्रकार की योजनाएँ प्रारंभ की जा रही हैं।

संबद्ध क्रिया-कलाप

अपने क्षेत्र के "स्वास्थ्य कर्ता" अथवा "स्वास्थ्य निरीक्षक" को छात्रों को कार्य संबंधी जानकारी देने के लिए विद्यालय में आमंत्रित करें।

तथा प्रोफेसर शिक्षा देते हैं और शिक्षा के क्षेत्र में शोधकार्य करते हैं।

पाठ्य विषयों के अनुसार भी शिक्षक कई प्रकार के होते हैं। जो भाषाएँ पढ़ाते हैं उन्हें भाषा-शिक्षक कहते हैं। इसी प्रकार गणित, विज्ञान, संस्कृति इतिहास, भूगोल, अर्थशास्त्र, शिल्प कला, ड्राइंग, व्यायाम, संगीत और अन्य विषयों के अलग अलग अध्यापक होते हैं। कुछ विद्यालयों में ऐसे अध्यापक भी होते हैं जो विद्यार्थियों को शिक्षा, प्रशिक्षण एवं व्यवसाय संबंधी सूचनाएँ प्रदान करते हैं और विषयों के चुनाव में उनकी सहायता करते हैं। ये व्यक्ति "कैरियर टीचर" के नाम से पुकारे जाते हैं। एक और व्यक्ति जिसे परामर्शदाता (काउंसलर) के नाम से जाना जाता है वह विद्यार्थियों के व्यक्तित्व का सामाजिक, भावात्मक एवं व्यवसाय संबंधी विकास एवं उनकी समस्याओं के समाधान में सहायता करता है। प्रत्येक विद्यालय में एक प्रधानाचार्य (प्रिंसीपल) होता है जो विद्यालय का निर्देशन करता है।

जरा सोचिए

देश में प्रत्येक व्यक्ति को साक्षर बनाने के अभियान में आप किस-किस प्रकार के प्रयास कर सकते हैं?

शिक्षा के क्षेत्र में काम करने वालों से तो शिक्षक तथा विद्यार्थी भली भाँति परिचित होंगे। इनमें अध्यापक का व्यवसाय प्रमुख है। अध्यापक स्कूल, कॉलेज और विश्वविद्यालयों में विद्यार्थियों को विभिन्न विषय पढ़ाते हैं, उनके ज्ञान में वृद्धि करते हैं, तथा उनमें अनुशासन एवं अच्छा चरित्र बनाने का प्रयत्न करते हैं। इस प्रकार वे उनके व्यक्तित्व-विकास में व जीवन को संतोषमय और सफल बनाने में सहायक होते हैं।

अध्यापक कई स्तरों के होते हैं। शिशुशाला (नर्सरी) के शिक्षक तीन से पाँच या छः वर्ष तक की आयु के बच्चों को शिक्षा देते हैं। प्राइमरी शिक्षक छः से ग्यारह वर्ष तक के बच्चों को पढ़ाते हैं। माध्यमिक तथा उच्चतर माध्यमिक कक्षाओं में 'ट्रेन्ड ग्रेजुएट अध्यापक' तथा 'पोस्ट ग्रेजुएट अध्यापक' शिक्षा प्रदान करते हैं। कॉलेजों तथा विश्वविद्यालयों में प्रवक्ता (लेक्चरर),प्रवाचक (रीडर)

शिक्षा निदेशालय द्वारा विद्यालयों का समय-समय पर निरीक्षण भी किया जाता है। इसके लिए निदेशालय में सहायक शिक्षा अधिकारी, शिक्षा अधिकारी, सहायक शिक्षा निदेशक, उप शिक्षा निदेशक, निदेशक के पदों पर व्यक्ति कार्य करते हैं। उच्चतर माध्यमिक शिक्षा के उपरांत जो विद्यार्थी आगे शिक्षा प्राप्त करना चाहते हैं वे कॉलेजों तथा विश्वविद्यालयों में प्रवेश करते हैं। इनके शिक्षकों को लेक्चरर कहते हैं, पदोन्नति होने पर ये शिक्षक प्रवाचक या रीडर कहलाते हैं। उनसे भी ऊँचे स्तर के अधिक शिक्षा प्राप्त एवं अनुभवशील प्रोफेसर

कहलाते हैं। प्रत्येक विषय का अलग-अलग विभाग होता है जिसका अधीक्षक एक प्रोफेसर होता है। महाविद्यालयों में प्रधानाचार्य के निर्देशन और निरीक्षण में विद्यालय का कार्य चलता है। विश्वविद्यालयों में प्रधान को उपकुलपति तथा प्रशासन संबंधी कार्य के लिए नियुक्त प्रधान को कुल सचिव (रजिस्ट्रार) कहा जाता है।

प्रत्येक विद्यालय, महाविद्यालय एवं विश्वविद्यालय में पुस्तकालय भी होता है। इसी प्रकार अनुसंधान संस्थाओं में, औद्योगिक संस्थानों में, सरकारी कार्यालयों में तथा शहरों के विभिन्न भागों में पुस्तकालय होते हैं। इन पुस्तकालयों के कार्य को सुचारू रूप से चलाने वाले को पुस्तकाध्यक्ष (लाइब्रेरियन) कहा जाता है। पुस्तकालय में सहायक के पदों पर भी व्यक्ति कार्य करते हैं। उनका कार्य पुस्तकों, पत्र-पत्रिकाओं को सुचारू रूप से रखना है जिससे वे आसानी से प्राप्त की जा सकें। वह उनका वर्गीकरण करके, वर्गीकरण अंक कार्डों पर लिखकर यथास्थान अलमारी में रखते हैं। अन्य कार्य जैसे पुस्तक लेने वालों के नाम पर पुस्तकों को जारी करना, वापिस की जा रही पुस्तकों की जाँच करके वापिस लेना आदि सहायकों द्वारा किए जाते हैं।

व्यवसाय से अवकाश के बाद पाठ्य विषयों से संबंधित पुस्तकों की रचना का कार्य करते हैं। आजकल राष्ट्रीय पुस्तक न्यास (एन.बी.टी.), प्रकाशन विभाग तथा राष्ट्रीय पुस्तक संस्थानों के शिक्षा अधिकारी भी पुस्तकें लिखने का कार्य करते हैं। राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद् में भी पुस्तकें तैयार की जाती हैं।

विद्यालयों के अतिरिक्त शिक्षा प्राप्त करने के और भी साधन हैं। इनमें रेडियो, टेलीविजन तथा पत्रिकाएँ आदि सम्मिलित हैं। इनसे संबंधित व्यवसायों में भी बहुत से व्यक्ति कार्य करते हैं। समाचार पत्र के कार्यालयों में "रिपोर्टर" तथा "संवाददाता" होते हैं जो समाचार को एकत्रित करते हैं। वे विभिन्न स्थानों का भ्रमण करते हैं, सामाजिक आयोजनों व संसद भवन जाते हैं, घटना स्थलों पर घटना के विषय में सूचना एकत्र करते हैं तथा प्रमुख व्यक्तियों से बातचीत करते हैं। इन समाचारों का संपादन करके संपादक उन्हें अखबारों में प्रकाशित करते हैं।

अब हम आपको उन व्यक्तियों के विषय में बताने जा रहे हैं जो कि रेडियो कार्यक्रमों द्वारा हमें शिक्षा एवं मनोरंजन प्रदान करते हैं। ये कार्यक्रम

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आपके विद्यालय में विभिन्न स्तरों व क्षेत्रों में शिक्षा देने तथा अन्य संबंधित कार्यों में कौन-कौन व्यक्ति लगे हुए हैं? **उनसे बातचीत करके उनके कार्य** व प्रशिक्षण संबंधित जानकारी प्राप्त करिए।

जो पुस्तकें हम पढ़ते हैं, उनको लिखने वाले "लेखक" कहलाते हैं। हमारे देश में कुछ ही लेखक ऐसे हैं जो केवल पुस्तकें अथवा लेख लिखने का कार्य करते हैं। अधिकांश लेखक अपने मुख्य कार्य से अवकाश पाने पर लेखन का कार्य करते हैं। कुछ अध्यापक ग्रीष्मावकाश में अथवा

आकाशवाणी केन्द्रों से प्रसारित किए जाते हैं। यहाँ पर कई प्रकार के कलाकार एवं कर्मचारी होते हैं जैसे इंजीनियर, संगीतज्ञ, नाटककार, वादक, अभिज्ञापक (एनाउंसर), प्रोड्यूसर, संवाद लेखक, अभिनेता, प्रोग्राम एक्जीक्यूटिव इत्यादि। कुछ नाटक व संगीत के कार्यक्रमों में भाग लेते हैं, कई खेलकूद कार्यक्रमों

तथा किसी महत्वपूर्ण आयोजन का आँखों देखा हाल सुनाते हैं। इन्हें "कमेन्टेटर" कहा जाता है। कुछ रेडियो व दूरदर्शन पर समाचार पढ़ते हैं। आकाशवाणी केन्द्र के सभी कार्यक्रमों का निर्देशन तथा निरीक्षण "स्टेशन डायरेक्टर" के द्वारा किया जाता है और वह वहाँ का प्रधान होता है।

समाज-सेवा

कुछ व्यक्ति समाज तथा जनता की बिगड़ी हुई दशा को सुधारने का प्रयत्न करते हैं। ये कार्य सामाजिक व्यवसाय हैं। ये व्यक्ति परोपकार तथा दूसरों की भलाई के लिए कार्य करते हैं ताकि समाज का सुधार हो और प्रत्येक व्यक्ति आर्थिक और सामाजिक दृष्टि से आगे बढ़े। समाज-सुधार करने के लिए समाज में वर्तमान परिस्थितियों का विभिन्न दृष्टिकोणों से अध्ययन किया जाता है इसलिए कुछ व्यक्ति इस क्षेत्र में अनुसंधान में लगे रहते हैं तथा कुछ जनता में जाकर उनका सुधार करते हैं।

अर्थशास्त्रज्ञ (इकोनोमिस्ट) समाज की आर्थिक परिस्थितियों का अध्ययन करते हैं। इसमें वे विभिन्न प्रकार की वस्तुओं के मूल्यों का भी अध्ययन करते हैं। इसके लिए इन्हें बहुत-सी सूचना एकत्रित करनी पड़ती है और विश्लेषण तथा व्याख्या करनी होती है ताकि जिन अधिकारियों द्वारा वे नियुक्त किये जाते हैं वे इन विषयों में महत्वपूर्ण निर्णय ले सकें।

मनौवैज्ञानिक व्यक्ति के व्यवहार का अध्ययन करता है। इसमें वह न केवल व्यक्ति की बाह्य क्रियाओं का अध्ययन करता है अपितु वह व्यक्ति के विचारों, भावों, आकांक्षाओं, उद्देश्यों, प्रवृत्तियों तथा इच्छाओं का भी अध्ययन करता है।

समाजविज्ञ (सोशियोलोजिस्ट) सांप्रदायिक तथा सामाजिक अवस्था का अध्ययन करता है। पुरात्ववेत्ता (आरकिओलोजिस्ट) समाज की भौतिक विशेषताओं तथा धार्मिक तथा सांस्कृतिक रीतियों के विकास का अध्ययन करता है। जो व्यक्ति वास्तव में जनता की सेवा का कार्य करते हैं उनमें समाज सेवक, लेबर वेलफेयर ऑफिसर इत्यादि व्यवसाय प्रमुख हैं। समाज सेवक पिछड़े हुए, गरीब तथा अशिक्षित वर्गों में जाकर उन्हें स्वास्थ्य संबंधी शिक्षा देते हैं, उन्हें पढ़ाते हैं तथा उन्हें रहने के लिए घर तथा वस्त्र इत्यादि सुविधाएं दिलवाने में सहायता करते हैं। समाज सेवक जन कल्याण केन्द्रों, अस्पतालों तथा औद्योगिक संस्थानों द्वारा भी नियुक्त किए जाते हैं। औद्योगिक संस्थानों में समाज सेवक, मजदूर कल्याण अधिकारी की तरह जाने जाते हैं।

समाज सेवक गाँवों में भी नियुक्त किए जाते हैं। इन्हें ग्राम सेवक अथवा ग्राम सेविका कहा जाता है। ग्राम सेविका, ग्रामीण व्यक्तियों को अच्छे साधनों द्वारा रहना व खाना-पीना सिखाती है तथा स्वच्छता से रहने और बीमारियों से बचने के उपायों को बताती है।

व्यवसाय संबंधी सहायता के लिए सरकार द्वारा सेवा नियोजन अधिकारी (एंप्लायमेंट ऑफीसर) रखे जाते हैं जो बेरोजगार व्यक्तियों को व्यवसाय ढूँढने में सहायता प्रदान करते हैं।

संबद्ध कार्य कलाप

आपके नगर या गाँव में समाज-कल्याण के क्षेत्र में कौन-कौन-सी संस्थाएं व व्यक्ति कार्य कर रहे हैं इनकी सूचना एकत्र करिए।

अभ्यास

शिक्षकों तथा विद्यार्थियों के लिए

1. शरीर के विभिन्न अंगों का उपचार करने वाले कौन-कौन-से विशेषज्ञ हैं?
2. पैथोलोजिस्ट तथा रेडियोलोजिस्ट क्या कार्य करते हैं?
3. रेडियो तथा टेलीविजन पर जो कार्यक्रम आप सुनते व देखते हैं उनको बनाने व दिखाने में किन-किन व्यक्तियों का हाथ होता है?

विद्यार्थियों के लिए

विद्यालय के पुस्तकालय में जाकर पुस्तकाध्यक्ष से जानने का प्रयास करें कि उन्होंने इस व्यवसाय में किस प्रकार प्रवेश किया, साथ ही पुस्तकालय में पुस्तकें प्राप्त करने, वर्गीकरण करने, पाठकों को पुस्तकें देने व लेने से संबंधित जानकारी प्राप्त करें।

यातायात, संचार, व्यापार तथा वाणिज्य के व्यवसाय

उद्देश्य

इस लेख को पढ़कर आप जान सकेंगे कि–

– यातायात, संचार, व्यापार तथा वाणिज्य के क्षेत्र में कौन-कौन से व्यवसाय हैं?

– इन व्यवसायों में व्यक्ति क्या-क्या काम करते हैं?

यातायात

आज के इस वैज्ञानिक युग में उन्नति के लिए प्रत्येक कार्य का शीघ्रतापूर्वक किया जाना अत्यंत आवश्यक है। जिस प्रकार वस्तुओं के शीघ्रता से उत्पादन के लिए मशीनों का प्रयोग किया जाता है उसी प्रकार तैयार की गई वस्तुओं को जनता तक शीघ्र पहुँचाने के लिए परिवहन के साधनों का आविष्कार हुआ। प्राचीन काल में एक स्थान से दूसरे स्थान तक वस्तुएँ या संदेश पहुँचाने के लिए सप्ताह और कभी-कभी माह भी लग जाते थे। परंतु आजकल परिवहन तथा संचार के साधनों के आविष्कार की सहायता से ये सभी कार्य बहुत शीघ्र हो जाते हैं। आजकल हमारे पास एक स्थान से दूसरे स्थान तक जाने के लिए बस, रेलगाड़ी, मोटर, जहाज, विमान इत्यादि सवारियाँ हैं जिनकी सहायता से एक साथ कई व्यक्ति शीघ्रता तथा सुविधापूर्वक आ जा सकते हैं। इससे समय की बचत होती है जिससे उस समय का उपयोग कई अन्य कार्यों के लिए किया जा सकता है।

यातायात की ही तरह संदेशों को आजकल सैकड़ों, हजारों मील तक कुछ ही घंटों में पहुँचाने वाले डाक, तार, टेलीफोन के साधन भी उपलब्ध हैं। ये सभी हमारे आवागमन तथा संचार के साधन हैं। इन सभी आवागमन के साधनों को बनाने, चलाने तथा उनकी देखभाल करने के लिए अनेक व्यक्ति नियुक्त किए जाते हैं जिनके कार्य के विषय में अब हम यहाँ चर्चा करेंगे।

यातायात से संबंधित कुछ व्यवसायों से आप सभी परिचित हैं। इस क्षेत्र के व्यवसायों में कुछ व्यवसाय जैसे—बस ड्राइवर, रेल चालक, विमान चालक आदि व्यवसाय जाने-पहचाने हैं। बस में ड्राइवर के अतिरिक्त एक कंडक्टर भी होता है जो यात्रियों को टिकट बाँटता है। लंबी यात्रा वाली बसों में टिकट बाँटने का काम टिकट घर से होता है। बस में ड्राइवर और कंडक्टर की सहायता के लिए 'क्लीनर' होता है। मार्ग में "टिकट चैकर" यात्रियों के टिकट चैक करते हैं और यात्रियों की संख्या की भी गणना करते हैं। राजकीय रोडवेज में बहुत से और व्यक्ति भी काम करते हैं जैसे—महाप्रबंधक, यातायात प्रबंधक, सहायक यातायात प्रबंधक तथा सुपरवाइजर्स आदि जो विभिन्न स्तरों पर यातायात की व्यवस्था, निरीक्षण तथा निर्देशन करते हैं।

आप सभी कभी-न-कभी रेल यात्रा भी अवश्य कर चुके होंगे। रेल को चलने का आदेश गार्ड द्वारा दिया जाता है। यात्रा के समय टिकट चैकर यात्रियों के टिकटों का निरीक्षण करते हैं। यात्रा

समाप्त होने पर स्टेशन पर "टिकट कलेक्टर्स" टिकट वापिस लेते हैं। स्टेशन की व्यवस्था स्टेशन मास्टर के अधीन होती है, इसके अतिरिक्त वहाँ पर सहायक स्टेशन मास्टर, टिकट बाबू तथा सिगनल मैन और लाइन मैन भी होते हैं। सिगनल मैन और लाइन मैन रेलगाड़ी के आने और जाने की सूचना देने और सुरक्षित रूप से चलने की व्यवस्था करते हैं।

इसके अतिरिक्त रेल लाइन का समय-समय पर निरीक्षण करने और लाइन की मरम्मत के कार्य का निरीक्षण करने के लिए इंसपैक्टर होते हैं। रेलवे की व्यवस्था के लिए बहुत से व्यक्ति जैसे महाप्रबंधक, उप महाप्रबंधक, डिवीजनल अधीक्षक तथा रेलवे इंजीनियर्स आदि पदों पर व्यक्ति कार्य करते हैं।

पोत परिवहन (शिपिंग) से संबंधित भी कई व्यवसाय हैं। प्रमुख अधिकारी को "कैप्टन" कहा जाता है जिसके निर्देशन में जहाज के सभी कार्य होते हैं। "मैरीन इंजीनियर" की देखभाल में जहाजों की मशीनों को बनाने तथा उनका निरीक्षण करने

वायुयान के चालक को "पायलट" कहा जाता है। पायलट, इंजीनियर व चालकों के साथ ही वायुयान में बैठते हैं एवं इंजन, मशीनों और अन्य यंत्रों की देखभाल करते हैं। वायुयान संचालक "एयरक्राफ्ट नैवीगेटर" से मौसम संबंधी बातों की जानकारी रखता है और चालक को दिशा संबंधी सुझाव देता है। विमान परिचारिकाएँ (एयर होस्टैस) यात्रियों की सुविधा और आराम का ध्यान रखती हैं। यात्रियों को भोजन देना, पढ़ने के लिए पत्रिकाएँ पहुँचाना, यात्री के अस्वस्थ हो जाने पर प्राथमिक चिकित्सा करना आदि विमान परिचारिकाओं का कार्य है। विमानों के हवाई अड्डों से उड़ने तथा उतरने में "एयरसर्विस ट्रैफिक कंट्रोलर" पायलट की सहायता करते हैं। ये उड़ते हुए विमान से संबंध स्थापित करते हैं और विमान का दिशा निर्देशन करते हैं। हवाई अड्डों पर बुकिंग क्लर्क, रिसेप्शनिस्ट आदि पदों पर भी कई व्यक्ति काम करते हैं। विमानों का निर्माण भी एक बहुत महत्वपूर्ण कार्य है जिसे "एरोनोटिकल इंजीनियर" करते हैं।

जरा सोचिए

आपने कभी बस, रेल तथा हवाई जहाज की यात्रा की होगी। आप इन व्यवसायों से संबंधित किन-किन व्यक्तियों के संपर्क में आए? अपने अनुभव के आधार पर आप छात्रों को इस क्षेत्र के व्यवसायों के बारे में और किस किस प्रकार की सूचना दे सकते हैं?

का कार्य होता है। पोताधिकारी जहाज का एकाउंटेंट होता है तथा यात्रियों के मनोरंजन के कार्यों का भी प्रबंध करता है। डेक पर कार्य करने वाले नाविक जहाज को स्वच्छ रखते हैं। जहाज बंदरगाहों पर आकर रुकते हैं। बंदरगाह का कार्य "बंदरगाह अधिकारी" के निर्देशन और निरीक्षण में होता है।

संचार

डाकिये से कौन परिचित नहीं होगा। संचार के क्षेत्र में डाकिये का व्यवसाय अत्यंत महत्वपूर्ण है। वह तो प्रतिदिन हमारे लिए पत्र, मनीआर्डर आदि लाता है। डाक घर से भी हम सभी परिचित हैं जहाँ से कार्ड, लिफाफे, टिकट आदि खरीदे जाते

हैं और वहीं से पार्सल, मनीआर्डर, रजिस्ट्री, खत भी भेजे जाते हैं। प्रत्येक कार्य के लिए अलग-अलग काउन्टर होते हैं जहाँ पर एक व्यक्ति बैठा होता है। डाकघर का सारा कार्य पोस्ट मास्टर के निर्देशन तथा निरीक्षण में चलता है। तार भेजने का कार्य भी पोस्ट ऑफिस से ही होता है। एक काउन्टर पर तार भेजे जाते हैं तथा बाहर से आया हुआ संदेश प्राप्त भी किया जाता है। टेलीफोन ऑपरेटर्स विभिन्न प्रकार की पूछताछ और शहर से बाहर की जाने वाली टेलीफोन से बातचीत का प्रबंध करते हैं। टेलीफोन एक्सचेन्ज तथा टेलीफोन लाइन्स का तथा टेलीफोन उपकरण को स्थापित करने का कार्य "टेलीकम्यूनीकेशन इंजीनियर" की देख रेख में होता है। टेलीफोन, बेतार से संबंधित यंत्रों, मशीनों के बनाने का कार्य भी "टेलीकम्यूनीकेशन इंजीनियर" (दूर संचार अभियंता) ही करते हैं।

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विद्यार्थियों से बातचीत द्वारा यह जानने का प्रयास करें कि यातायात अथवा संचार के क्षेत्र में जाने के इच्छुक विद्यार्थियों को इन व्यवसायों की कितनी जानकारी है? उनकी उपलब्धियों व रुचियों को देखते हुए क्या उनका व्यावसायिक चयन उपयुक्त है?

व्यापार तथा वाणिज्य

हम अपनी आवश्यकता की वस्तुएँ जैसे कलम, कॉपी, साबुन, तेल, गेहूँ आदि बाजार में दुकानों से खरीद लेते हैं। ये वस्तुएँ कारखानों तथा उत्पादन के स्थानों से प्राप्त होती हैं परंतु इनको सीधे उत्पादन के स्थान से नहीं प्राप्त किया जाता और न ऐसा संभव ही है क्योंकि उत्पादन के स्थान विभिन्न होने के कारण अलग-अलग स्थानों पर जाना कठिन होगा, जबकि एक दुकान पर कितनी ही वस्तुएँ एक साथ मिल सकती हैं। इसके अतिरिक्त हो सकता है कि उत्पादन के स्थान, किसी दूसरे शहर अथवा किसी अन्य प्रदेश में हों। दुकान से सामान खरीदने से हमारे समय में बहुत भारी बचत होती है। इन छोटी-छोटी दुकानों को रिटेल की दुकानें या परचून की दुकानें कहते हैं। रिटेल दुकानदार (अल्पशः विक्रेता) भी सीधे कारखानों तथा उत्पादन के स्थानों से सामान नहीं खरीदते। वे थोक व्यापारियों से सामान खरीदते हैं। उदाहरण के लिए देहली का सदर बाजार थोक व्यापारियों का बाजार है।

अल्पशः तथा थोक व्यापार में अनेक व्यवसाय आते हैं। सबसे पहले इसमें थोक व्यापारी का कार्य आता है। थोक विक्रेता कारखानों, औद्योगिक संस्थानों से अधिक संख्या में माल को लेकर अल्पशः विक्रेता को बेचते हैं और अल्पशः विक्रेता इस माल को दुकानों में लाकर ग्राहकों को देते हैं। विक्रेता अपनी वस्तुओं की अच्छी बिक्री के लिए ग्राहकों की पसंद को समझकर, उसी प्रकार की वस्तुएँ दिखाने का प्रयत्न करता है जिसमें उनकी रुचि हो। इसके साथ-साथ वह उनसे अच्छी तरह बातचीत भी करता है। ग्राहकों को दुकान की ओर आकर्षित करने के लिए वह अच्छी-अच्छी वस्तुओं को आकर्षक ढंग से शो-विन्डोस में सजाता है। ये विक्रेता औद्योगिक संस्थानों के लिए भी कार्य करते हैं। इन विक्रेताओं को अपने माल को

बेचने के लिए एक स्थान से दूसरे स्थान पर घूमना पड़ता है, इन्हें "ट्रैवलिंग सेल्समैन" कहा जाता है। ये बड़ी औद्योगिक संस्थाओं, उत्पादन संस्थाओं द्वारा नियुक्त किए जाते हैं। इन्हें किसी एक क्षेत्र में स्थित स्थानों का भ्रमण करने के लिए कहा जाता है। और वे उन स्थानों की दुकानों, छोटी औद्योगिक संस्थाओं के मैनेजरों या प्रधानों से मिलते हैं व उनके पास अपने उत्पादन के नमूनों को छोड़ जाते हैं ताकि वे उनकी वस्तुओं का प्रयोग करके यह जान सकें कि वस्तु वास्तव में अच्छी है या नहीं। इस प्रकार के विक्रेता कई प्रकार के होते हैं। जैसे दवाइयों को बेचने के लिए जो विक्रेता अस्पतालों, नर्सिंग घरों, दवा बेचने वाली दुकानों तथा डाक्टरों के पास जाते हैं उन्हें "मेडिकल रिप्रेजेन्टेटिव" कहा जाता है। ये प्रतिनिधि अपनी कंपनी की दवाइयों के नमूनों को डाक्टरों को दे देते हैं तथा उन्हें अपना उत्पाद खरीदने के लिए कहते हैं।

जिस प्रकार पेन, कॉपी, दवा इत्यादि दुकान से खरीदी जाती है उसी प्रकार उन वस्तुओं को जो एक स्थान से दूसरे स्थान तक नहीं ले जाई जा सकतीं जैसे मकान, जमीन, बाग इत्यादि उन्हें खरीदने के लिए प्रायः व्यक्ति दलाल के पास जाते हैं। घर, फ्लैट इत्यादि खरीदने के लिए "हाउस ब्रोकर" होते हैं तथा जमीन खरीदने के लिए "एस्टेट ब्रोकर" होते हैं। इन दलालों को घर तथा जमीन के विक्रेता वस्तु को बिक जाने के बाद कुछ कमीशन दे देते हैं।

इन सब व्यवसायों के अतिरिक्त वाणिज्य के क्षेत्र में कुछ और भी व्यवसाय हैं जैसे जीवन बीमा एजेन्ट (लाइफ इन्श्योरेन्स एजेन्ट)। जिस प्रकार व्यक्ति के जीवन का बीमा (इन्श्योरेन्स) किया जाता है उसी प्रकार घर, कार, दुकानों तथा अन्य बहुमूल्य वस्तुओं की भी इन्श्योरेन्स की जाती है। विद्यार्थियों को बताने के लिए कि इन्श्योरेन्स का क्या अर्थ है तथा इन्श्योरेन्स क्यों की जाती है, यह कहा जा सकता है कि इन्श्योरेन्स कंपनियाँ कुछ कीमत पर मकान, दुकान इत्यादि को सुरक्षित करती हैं। किसी दुर्घटना अर्थात घर में आग लग जाने पर इन्श्योरेन्स एजेन्ट जितना भी नुकसान हुआ हो उसके अनुसार क्षतिपूर्ण करने के लिए उतनी ही कीमत दे देते हैं। कोई भी इन्श्योरेन्स पॉलिसी खरीदने के लिए एक साथ कीमत नहीं देनी पड़ती। जैसे मान लो राम ने 20,000 रुपए का जीवन बीमा किया है तो उसे प्रत्येक माह कुछ रुपये देने पड़ते हैं। यदि बीमे के रुपए पूरे होने के पहले ही राम की मृत्यु हो जाती है तो पॉलिसी के सारे 20,000 रुपये उसके घर वालों को मिल जाएँगे। इसी प्रकार घर, दुकान तथा अन्य वस्तुओं का बीमा भी किया जाता है। बीमा एजेन्ट घर-घर जाकर प्रत्येक व्यक्ति को बीमा के लाभों को बताता है और पॉलिसी के खरीद लिए जाने के बाद जब भी कभी कोई दुर्घटना होती है तो वह ग्राहक को रुपये दिलाने में सहायता करता है।

वाणिज्य के क्षेत्र में एक और व्यवसाय है विज्ञापन कर्ता का। विज्ञापन का किसी भी उत्पाद

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आप प्रायः दुकानों पर सामान खरीदने जाते हैं। कुछ दुकानदारों से बातचीत द्वारा जानने का प्रयत्न कीजिए कि वे अपनी दुकान का माल किस प्रकार तथा किन-किन व्यापारियों से प्राप्त करते हैं?

की बिक्री पर काफी प्रभाव पड़ता है। प्रायः आपने बाजार में आते-जाते दुकानों में, सड़कों पर बोर्ड पर लगे हुए तथा पत्र-पत्रिकाओं, पुस्तकों, कैलेन्डरों में तरह-तरह की वस्तुओं के विज्ञापन देखे होंगे। इनमें से कुछ विज्ञापन अत्यंत आकर्षक होते हैं। विज्ञापन व्यक्ति का ध्यान आकर्षित करने के लिए किए जाते हैं ताकि देखने वाला व्यक्ति उसे पढ़ने को उत्सुक हो जाए और फिर वह जिस वस्तु का विज्ञापन है उसे खरीदने को इच्छुक हो जाए।

जरा सोचिए

रेडियो व टेलीविजन पर आप सब बहुत से उत्पादों के विज्ञापन सुनते व देखते हैं। किस प्रकार के विज्ञापन आपका ध्यान अपनी ओर अधिक आकर्षित करते हैं? कौन-कौन सी बातें विज्ञापन को अधिक प्रभावकारी बनाती हैं?

विज्ञापन कभी-कभी औद्योगिक एवं उत्पादन संस्थाओं द्वारा तैयार किए जाते हैं, परंतु प्रायः ये संस्थाएँ विज्ञापन का कार्य, विज्ञापन एजेंसियों को दे देती हैं, तथा विज्ञापनकर्ता कमर्शियल कलाकार, डिजाइनर इत्यादि मिलकर विज्ञापन तैयार करते हैं। ये एजेंसियाँ न केवल पत्र-पत्रिकाओं द्वारा. प्रचार करती हैं वरन सिनेमा, रेडियो, टेलीविजन द्वारा भी अपने उत्पाद का प्रचार करती हैं।

किसी भी वस्तु को खरीदने के लिए रुपये की आवश्यकता होती है। अर्थात व्यापार में, वस्तु के आदान-प्रदान में, प्रतिदिन फल, सब्जी, अनाज, वस्त्र आदि खरीदने के लिए रुपये की आवश्यकता होती है। रुपये का आदान-प्रदान बहुत प्रकार से किया जाता है। बहुमूल्य वस्तुओं जैसे कार, जेवर, घर इत्यादि खरीदने के लिए प्रायः चेक दिए जाते हैं परंतु इसके लिए बैंक में एकाउंट होना आवश्यक है इससे जब भी हम किसी दूसरे शहर में किसी मित्र या संबंधी को रुपया भेजना चाहते हैं तो चेक द्वारा भेज सकते हैं। आजकल प्रायः सभी व्यक्ति अपनी आय का थोड़ा-सा भाग बैंक में जका करवा देते हैं जिससे कि उस पैसे पर उन्हें ब्याज मिल सके और आवश्यकता पड़ने पर वह उसे इस्तेमाल कर सकें। इसी प्रकार कुछ बैंक किसी व्यापार को प्रारंभ करने के लिए तथा किसी बहुमूल्य वस्तु को खरीदने के लिए रुपया उधार भी दे देते हैं। बैंक में ऊपर लिखे इन सभी कार्यों को करने के लिए बहुत से व्यक्ति

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विज्ञापन के क्षेत्र में रुचि रखने वाले विद्यार्थियों को कुछ आकर्षक लगने वाले विज्ञापनों के चित्र एकत्र करने के लिए कहें। प्रत्येक विज्ञापन के साथ कौन-कौन सी बातें उस विज्ञापन को प्रभावकारी बनाती हैं ये भी लिखने के लिए कहें।

कार्य करते हैं जिनमें सबसे प्रमुख काम "मैनेजर" का है। मैनेजर के निर्देशन और जानकारी के बिना बैंक की कोई भी कार्रवाई नहीं की जा सकती। इसके अतिरिक्त बैंक में कैशियर, एकाउंटेंट तथा अन्य क्लर्क होते हैं। जो रुपये-पैसे का लेखा रखते हैं, तथा रुपये के आदान-प्रदान में सहायता करते हैं। एकाउंटेंट का कार्य अत्यंत महत्वपूर्ण है। वह जो भी रुपया बैंक से बाहर जाता है तथा जमा कराया जाता है उनका लेखा करता है। एकाउंटेंट न केवल बैंकों द्वारा रखे जाते हैं अपितु बड़ी व्यापारिक, औद्योगिक संस्थाओं द्वारा भी रखे जाते हैं। बैंकों तथा औद्योगिक संस्थाओं के हिसाब-किताब का निरीक्षण करने वाले भी होते हैं जिन्हें ऑडीटर कहा जाता है। ये लेन-देन का कार्य ठीक हो रहा है या नहीं, यह देखने के लिए समय-समय पर हिसाब के रजिस्टरों का निरीक्षण करते हैं।

औद्योगिक उन्नति के लिए ये सभी व्यवसाय महत्वपूर्ण हैं। इन सभी व्यवसायों में लगे हुए व्यक्ति अपने सहयोग से वाणिज्य तथा व्यापार के क्षेत्र में अभिवृद्धि तथा विकास कर रहे हैं।

अभ्यास

शिक्षकों के लिए

1. उत्पादन तथा विक्रय से संबंधित कौन-कौन से व्यवसाय हैं?
2. "इन्श्योरेन्स" क्या है और क्यों की जाती है?
3. विज्ञापन क्यों तैयार किए जाते हैं?

विद्यार्थियों के लिए

1. अपने घर के पास के बैंक में जाकर वहाँ काम करने वाले विभिन्न व्यक्तियों के साथ बातचीत द्वारा उनके कार्य की जानकारी एकत्रित करिए।
2. बस, रेल, वायुयान, पोत आदि परिवहनों से संबंधित व्यवसायों के चित्र एकत्रित कर चार्ट बनाइए।

निर्माण-कार्य, व्यक्तिगत सेवा तथा मनोरंजन के व्यवसाय

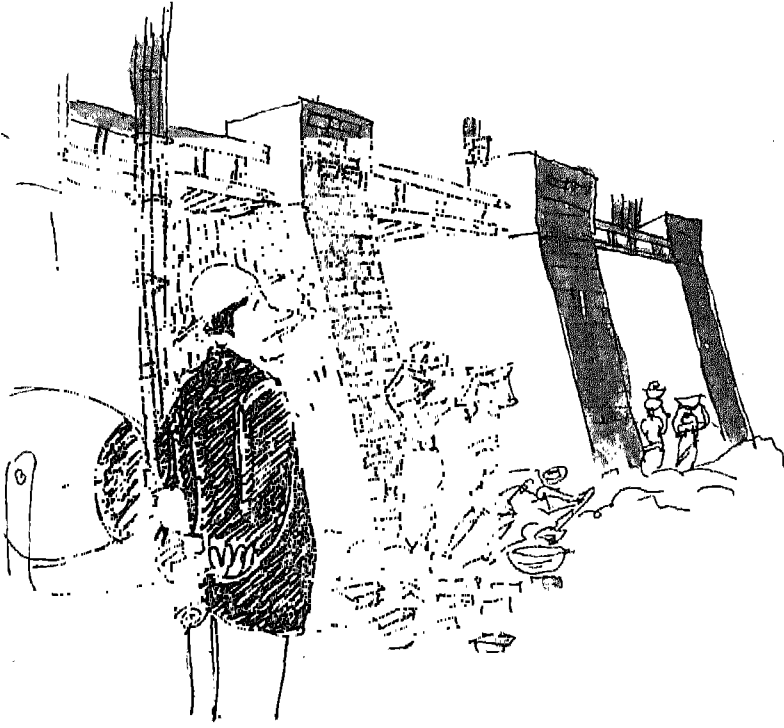
उद्देश्य

इस लेख को पढ़कर आप जान सकेंगे कि—

- निर्माण के क्षेत्र में कौन-कौन-से व्यवसाय हैं तथा विभिन्न वस्तुओं के निर्माण में कौन-कौन-से व्यक्ति कार्य करते हैं।
- व्यक्तिगत सेवा में लगे व्यक्ति किन कार्यों द्वारा हमारी व्यक्तिगत आवश्यकताओं को पूरा करते हैं।
- मनोरंजन के क्षेत्र में कौन-कौन-से व्यवसाय हैं।

निर्माण-कार्य

प्रतिदिन ही आप किसी घर, इमारत अथवा भवन का निर्माण होते हुए देखते होंगे। आजकल तो बड़े-बड़े शहरों में ऊँची-ऊँची कई मंजिलों वाली इमारतें बनाई जा रही हैं। इन्हें देखकर प्रायः आश्चर्य होता है कि भला ये इतनी बड़ी-बड़ी इमारतें कैसे बनती हैं? हम इन भवनों के सामने कुछ देर रुककर वहाँ पर कार्य करने वालों की कुशलता पर आश्चर्य भी करते हैं। ये व्यक्ति निर्माण उद्योग से संबंधित व्यवसायों में कार्य करते हैं। इस उद्योग में न केवल व्यक्ति घरों व इमारतों का निर्माण करते हैं अपितु सड़कों, रेलवे लाइनों, पुलों तथा सुरंगों, टेलीफोन तथा टेलीग्राफ के खंभों की स्थापना का कार्य भी करते हैं। इसके अतिरिक्त नहरों, जलाशयों, बाँधों एवं कुओं का निर्माण भी इन्हीं के द्वारा किया जाता है। आपने भाखड़ा बाँध के विषय में सुना होगा। वे सभी व्यक्ति मुख्य इंजीनियर से लेकर मजदूर तक जिन्होंने इसके निर्माण में सहयोग दिया है वे सभी निर्माण उद्योग के अंतर्गत आते हैं।

इस उद्योग में सबसे महत्वपूर्ण व्यवसाय "सिविल इंजीनियर" का है। वही इन सभी निर्माण संबंधी कार्यों की योजना बनाता है, अन्य कारीगरों का निर्देशन करता है, तथा निरीक्षण भी करता है। भवन-निर्माण संबंधी कार्य प्रारंभ करने से पहले वह उस स्थान का निरीक्षण करता है, जहाँ पर निर्माण-कार्य होना है, उसके पश्चात् इमारत के रेखाचित्र का अध्ययन करता है, व्यय का हिसाब लगाता है, तथा इमारत में किस प्रकार की सामग्री की आवश्यकता होगी, यह भी देखता है। इसके पश्चात् जब निर्माण-कार्य हो रहा हो उस स्थान पर समय-समय पर जाकर कार्य-निरीक्षण करता है कि कार्य योजना के अनुसार हो रहा है या नहीं। वह ठेकेदार को विस्तार में आदेश समझाता रहता है। इस कार्य में ठेकेदार का भी महत्त्वपूर्ण स्थान है। ठेकेदार ने यदि एक से अधिक इमारतों के निर्माण का कार्य ले रखा हो, तो वह इतने अधिक कार्य का अकेले निर्देशन नहीं कर पाता इसलिए वह अपनी सहायता के लिए "ओवरसियर" को रखता है। ओवरसियर के अधीनस्थ अन्य कई कारीगर होते हैं, जैसे "राजमिस्त्री" जो दीवारों, स्तंभों तथा इमारत के अन्य भागों को बनाता है।

ईंट रखने वाला सीमेंट और गारे से ईंट जोड़ता जाता है। "बढ़ई" मकानों के दरवाजे, खिड़कियाँ तथा अन्य लकड़ी का काम करता है। "नलकार" मकान में पानी के नल पाइप इत्यादि को फिट करता है। इस प्रकार हम देखते हैं कि सिविल इंजीनियर, ठेकेदार, ओवरसियर तथा अन्य कई कारीगर वास्तविक निर्माण का कार्य करते हैं।

इन भवनों, इमारतों, पुलों इत्यादि के निर्माण के पहले उनके रेखाचित्र, डिजाइन तैयार किए जाते हैं। इन्हें बनाने वाले "वास्तुविद" (आर्किटेक्ट) तथा "ड्राफ्ट्समैन" कहलाते हैं। वास्तुविद सौन्दर्य, उपयोगिता तथा लागत को ध्यान में रखते हुए मकान का डिजाइन बनाता है। वह अपना कार्य ड्राफ्ट्समैन को समझा देता है, और ड्राफ्ट्समैन, वास्तुविद के निर्देशन में कार्य करता है।

जिस प्रकार भवनों व इमारतों के निर्माण के लिए वास्तुविद डिजाइन तैयार करते हैं, उसी प्रकार आधुनिक युग में शहर तथा नगरों के भी मानचित्र

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विद्यालय के आसपास किसी नई बन रही इमारत के निर्माण-स्थल पर विद्यार्थियों को ले जाएँ जहाँ विद्यार्थी इमारत के विभिन्न पक्षों के निर्माण-कार्य में लगे हुए ठेकेदार, मिस्त्री, बढ़ई, मजदूर आदि के कार्य का अवलोकन करके तथा बातचीत द्वारा कार्य संबंधी जानकारी प्राप्त करने का प्रयास करें।

बनाए जाते हैं, ताकि मकान, सड़कें इत्यादि खुले हों। उदाहरण के लिए नए मोहल्ले और पुराने मोहल्ले में तुलना कीजिए। किसी भी नए नगर के बनने के पहले उसका मानचित्र तैयार किया जाता है जैसे कि चंडीगढ़ शहर का निर्माण मानचित्र तैयार करने के पश्चात् ही हुआ। इस कार्य को करने वाले को "टाउन प्लानर" कहा जाता है। अधिकतर शहर जो बहुत पुराने बने हुए हैं, वहाँ आपने देखा होगा कि कुछ स्थानों में बहुत घनी आबादी हो गई है, तथा असंख्य मकानों के निर्माण हो जाने के कारण सड़कें बहुत तंग हो गई हैं जिससे कि आवागमन में असुविधा हो गई है। घनता के कारण अस्वच्छता

टाउन तथा कंट्री प्लानर अपने कार्य को अच्छी तरह करने के लिए "सर्वेक्षक" तथा "ड्राफ्ट्समैन" की सहायता लेते हैं। सर्वेक्षक जिस स्थान पर निर्माण-कार्य करना हो, वहाँ की भूमि के आकार, बनावट इत्यादि का सर्वेक्षण करते हैं।

व्यक्तिगत सेवा

कुछ व्यक्ति ऐसे व्यवसायों में लगे होते हैं जिनमें वह अन्य व्यक्तियों की सेवा द्वारा व्यक्तिगत आवश्यकताओं की पूर्ति करते हैं। "रसोइया" भोजन बनाकर देता है, "धोबी" वस्त्रों की धुलाई करते हैं, "बैरा" होटल व रेस्तरां में सेवा-कार्य करता है।

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रेखाचित्र बनाने में कुशल विद्यार्थी विद्यालय का मानचित्र बनाएँ। इस क्षेत्र में रुचि रखने वाले विद्यार्थी किसी वास्तुविद ड्राफ्ट्समैन अथवा सिविल इंजीनियर से बातचीत द्वारा इन व्यवसायों की कार्य व प्रशिक्षण संबंधी जानकारी प्राप्त करें।

भी बढ़ती जा रही है तथा पार्क एवं खुले स्थान जो कि स्वच्छ वायु के लिए आवश्यक हैं बहुत कम रह गए हैं। इसलिए अब जहाँ कहीं भी नगरों में निर्माण-कार्य हो रहा है उसके लिए टाउन प्लानर की सहायता ली जाती है। जिस प्रकार शहरों के विस्तरण के लिए टाउन प्लानर होते हैं उसी प्रकार गाँवों के विस्तरण तथा विकास के लिए "कंट्री प्लानर" होतें हैं। प्रायः टाउन प्लानर तथा कंट्री प्लानर एक दूसरे की सहायता से कार्य करते हैं।

बाल काटने और सजाने वाले "हेयर ड्रेसर" और नाई तथा घर में अन्य कार्य करने वाले "नौकर और आया" आदि भी होते हैं। हमारे देश में ये सभी कार्यकर्ता कम शिक्षा प्राप्त होते हैं इसलिए ये प्रारम्भ में कम वेतन पर इन व्यवसायों द्वारा अपनी जीविका चलाते हैं। आजकल बहुत से युवक/युवतियाँ इन क्षेत्रों में दसवीं या बारहवीं कक्षा के बाद विशेष प्रशिक्षण प्राप्त करते हैं और कई अपना खुद का व्यवसाय खोल लेते हैं। कार्य में कुशल और अनुभवी व्यक्ति इन व्यवसायों में भी बहुत अधिक धन और प्रतिष्ठा कमा लेते हैं जैसे बड़े होटलों में भोजन पकाने वाले, ड्राईक्लीनर की दुकान वाले, अपना होटल व रेस्तरां चलाने वाले व्यक्ति तथा बालों व रूप-सज्जा का कार्य करने वाली "ब्यूटीशियन" भी शादियों, पार्टियों तथा अन्य सामाजिक एवं सांस्कृतिक आयोजनों में रूप-सज्जा का कार्य करती हैं।

व्यक्तिगत आवश्यकताओं की पूर्ति के लिए कुछ अन्य व्यवसाय भी हैं जिनमें शिक्षा एवं प्रशिक्षण की आवश्यकता होती है। विमान परिचारिका विमान में बैठे हुए यात्रियों के आराम और सुविधा का ख्याल रखती है। वे उन्हें भोजन देने, पत्र-पत्रिकाएँ देने तथा प्राथमिक चिकित्सा देने का कार्य भी करती हैं। जब ये सभी कार्य किसी पुरुष के द्वारा किए जाते हैं तो उसे परिचारक (स्टीवर्ड) कहा जाता है। इसी प्रकार छात्रावास में रहने वाले व्यक्तियों की देखभाल के लिए एक "वार्डन" या सुपरिन्टेंडेंट होता है। बड़े होटलों तथा यात्री निवासों में "हाऊस कीपर" मेहमानों की सुख-सुविधा, आराम और स्वच्छता का निरीक्षण करते हैं।

मनोरंजन

दिनभर कार्य करने के पश्चात् मनोरंजन की आवश्यकता होती है। मनोरंजन से संबंधित अनेकों क्षेत्रों में बहुत से व्यक्ति कार्य करते हैं। प्रत्येक व्यक्ति के लिए मनोरंजन का अर्थ भिन्न होता है। कोई खेलकूद द्वारा मनोरंजन करता है, कोई संगीत द्वारा, कोई नाटक द्वारा तथा कोई पुस्तक को पढ़कर मनोरंजन करता है। बहुत से व्यक्ति मनोरंजन के कार्यों में दक्षता प्राप्त कर उसके प्रदर्शन को अपना व्यवसाय बना लेते हैं।

खेलकूद के क्षेत्र में खिलाड़ी होते हैं, जो किसी एक खेल में विशेष योग्यता और प्रशिक्षण प्राप्त कर अपनी कला का प्रदर्शन कर दूसरों का मनोरंजन करते हैं। इनके अतिरिक्त खेलों के प्रशिक्षक और खेल में दोनों टीमों के खिलाड़ियों की जीत हार का निर्णय करने वाले निर्णायक (एम्पायर) अथवा रेफ्री होते हैं जो यह देखते हैं कि खेल नियम के अनुसार हो रहा है या नहीं।

सिनेमा, टेलीविजन, रेडियो के क्षेत्र में संगीतज्ञ, नर्तक, वादक, अभिनेता, नाटककार, कहानी लेखक, एवं नृत्य-शिक्षक होते हैं तथा इन कार्यों के निर्देशक भी होते हैं जैसे फिल्म अथवा नाटक के निर्देशक तथा अभिनेता/अभिनेत्री के अभिनय का निर्देशन

जरा सोचिए

आपके घर व विद्यालय में व्यक्तिगत सेवा कार्यों में कौन-कौन व्यक्ति लगे हुए हैं? इन व्यवसायों में कार्य-परिस्थिति में सुधार के लिए आप क्या-क्या सुझाव दे सकते हैं?

करने वाले। एक कैमरामैन होता है जो फ़ोटोग्राफ खींचता है और फिल्म की रील तैयार करता है। सिनेमाघरों तथा नाटकघरों में टिकट देने वाले तथा गेट कीपर भी होते हैं, जो दर्शकों को उनके स्थान तक ले जाते हैं।

सर्कस आदि खेलों में पशुओं का प्रशिक्षण करने वाले होते हैं। वे शेर, भालू चीते, हाथी जैसे पशुओं को प्रशिक्षित कर उन्हें तरह-तरह की क्रीड़ाएँ करना सिखाते हैं। यहाँ पर रस्सी पर चलने वाले, आग में कूदने वाले, जोकर आदि कई व्यक्ति होते हैं जो अपने कारनामों द्वारा जनता को चकित कर देते हैं। इसी प्रकार बाजीगर तथा जादूगर भी होते हैं जो किसी समुदाय के सम्मुख चातुर्य और कौशल दिखाकर उन्हें आश्चर्यचकित करते हैं।

कठपुतली का नृत्य दिखाने वाले रंग बिरंगी कठपुतलियाँ बनाकर गीतों के साथ उनका खेल दिखाकर दर्शकों का मनोरंजन करते हैं।

इन सभी व्यवसायों में कार्य करने वाले अपनी कला और योग्यता से जनता के मनोरंजन में अपना योग देते हैं।

संबद्ध क्रियाकलाप

क्या तुम नृत्य, संगीत, कहानी लेखन, अथवा अभिनय में अत्यधिक रुचि रखते हो? इनमें से किसी भी क्षेत्र में दूसरे व्यक्ति क्या तुम्हारी उपलब्धियों की अत्यधिक प्रशंसा करते हैं? इस क्षेत्र में किसी व्यवसाय को अपनाने के इच्छुक छात्र किसी परिचित व्यक्ति से शिक्षा व प्रशिक्षण संबंधी जानकारी प्राप्त करें।

अभ्यास

1. निर्माण-कार्य में लगे व्यक्ति घरों व इमारतों के साथ-साथ और किस प्रकार का निर्माण-कार्य करते हैं? इस क्षेत्र के प्रमुख व्यवसाय क्या-क्या हैं?
2. व्यक्तिगत सेवा में लगे व्यक्ति किस प्रकार के कार्य करते हैं?
3. मनोरंजन से संबंधित अनेक क्षेत्रों में व्यक्ति क्या-क्या कार्य करते हैं?

परिशिष्ट

विद्यार्थी सूचना प्रश्नावली

इस प्रपत्र का उद्देश्य आपके बारे में जानकारी प्राप्त करना है ताकि हम आपकी, अपने को समझने, अपनी समस्याओं का हल ढूँढने तथा शैक्षिक व व्यावसायिक योजना बनाने में, अच्छी प्रकार सहायता कर सकें।

नाम...लिंग..

कक्षा...रोल नंबर..

विद्यालय..वर्ग...

जन्म-तिथि...

वर्तमान विद्यालय में प्रवेश की तिथि...

जन्म-स्थान..

पिता का नाम..

क्या आप अपने माता-पिता के साथ रह रहे हैं?...

यदि नहीं तो अपने अभिभावक का नाम तथा उनसे अपना संबंध लिखिए :

....

....

आपके माता-पिता/अभिभावक का क्या व्यवसाय है?...

आपके कितने भाई/बहन हैं? ....

इस समय आप किन विषयों का अध्ययन कर रहे हैं?...

किन्हीं एक या दो विषयों के नाम लिखिए जिन्हें आप सबसे अधिक पसंद करते हैं

....

आप किन सह-पाठ्य कार्यकलापों जैसे खेलकूद, वाद-विवाद प्रतियोगिता आदि में भाग लेते हैं

....

अवकाश के समय आप क्या करते हैं (कोई रुचियाँ यदि हों तो लिखें)

....

यदि आपको अपनी रुचि के क्रियाकलापों में भाग लेने में कोई कठिनाई होती हो तो नीचे लिखें

....

आपने अपने भविष्य के लिए किस प्रकार की शैक्षिक योजना बनाई है?

....

....

....

....

पढ़ाई के बाद आप किस व्यवसाय में प्रवेश करना चाहते हैं? अपनी पसन्द के अनुसार किन्हीं तीन व्यवसायों के नाम लिखिए।

....

....

....

....

....

परिवार संबंधी सूचना प्रश्नावली

विद्यार्थी का नाम ....

कक्षा .... वर्ग ....

घर का पता ....

पिता का नाम .... जीवित/अजीवित ....

अभिभावक का नाम .... विद्यार्थी से संबंध ....

पिता के बारे में

– शिक्षा और प्रशिक्षण

– व्यवसाय और पद

– संस्थान जहाँ वह कार्य करते हैं/थे

– वेतन (मय भत्ता) प्रतिमास

– कार्यालय का पता

– टेलीफोन नंबर

माता के बारे में

– शिक्षा और प्रशिक्षण

– व्यवसाय और पद

– संस्था जहाँ वह कार्य करती हैं/थीं

– वेतन (मय भत्ता) प्रतिमास

परिवार की कुल मासिक आय

आश्रितों की संख्या

विद्यार्थी के भाई और बहनें

	आयु	लिंग	शिक्षा	व्यवसाय	क्या परिवार के साथ रह रहे हैं
1.					
2.					
3.					
4.					

और कोई संबंधी जो स्थायी रूप से परिवार के साथ रह रहा हो (कृपया हरेक का विद्यार्थी से संबंध लिखें, जैसे दादा, चाचा आदि)

विद्यार्थी के स्वास्थ्य से संबंधित कोई समस्या

अवकाश के समय विद्यार्थी के क्रिया-कलाप

प्रायः कितने घंटे विद्यार्थी घर में पढ़ता है

विद्यार्थी का घर में कोई विशेष उल्लेखनीय व्यवहार

विद्यार्थी द्वारा किसी विशेष योग्यता, गुण अथवा रुचि का प्रदर्शन

विद्यार्थी से संबंधित कोई और सूचना

माता-पिता/अभिभावक की विद्यार्थी के भविष्य से संबंधित शैक्षिक एवं व्यावसायिक योजना

यदि आवश्यकता पड़े तो क्या माता-पिता/अभिभावक स्वयं भेंट के लिये आ सकते हैं?

हाँ/ नहीं

उस व्यक्ति के हस्ताक्षर जिसने यह फार्म भरा..............................

व्यक्ति का नाम..............................

विद्यार्थी से संबंध..............................

पता ....

....

....

दिनांक ....

संचयी अभिलेख पत्र

(प्रतिरूप)

विद्यालय का नाम एवं पता ....

....

नाम ....

पता ....

कक्षा .... वर्ग ....

(1) वैयक्तिक दित्ता

नाम .... पिता का नाम ....

जन्म-तिथि .... आयु ....

वर्तमान पता ....

....

घर में बोली जाने वाली भाषा .... धर्म ....

अन्य ज्ञात भाषाएँ ....

(2) पिछले विद्यालय में उपस्थिति

विद्यालय का नाम	वर्ग से........तक	वर्ष से........तक	परिवर्तन के कारण
1.			
2.			
3.			

(3) पारिवारिक पृष्ठभूमि

परिवार का आकार .... परिवार में स्थिति ....

आवास किराये का .... निजी ....

कमरों की संख्या ....

पैतृक पर्यवेक्षण .... घर में अध्ययन के लिए सुविधाएँ ....

माता-पिता का विवरण

छात्र के साथ संबंध नाम एवं पता उम्र शैक्षिक प्रशिक्षण व्यवसाय आयु

पिता..

माता..

अभिभावक..

बहनें...

उनकी वैवाहिक स्थिति विवाहित/अविवाहित..

भाई..

भाइयों की वैवाहिक स्थिति विवाहित/अविवाहित..

परिवार में अन्य सदस्यों के नाम (जो साथ रह रहे हों)

1.

2.

(4) शैक्षिक उपलब्धियाँ

क्रम	वर्ष	वर्ग	विषय (केवल ऐच्छिक)	उत्तीर्ण/अनुत्तीर्ण/ प्रोन्नति	स्थान यदि कोई हो
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

(5) स्वास्थ्य एवं शारीरिक गठन

1. कद
2. वजन
3. छाती सामान्य फुलाने पर
4. आँखें दायीं बायीं
5. कान, नाक एवं गला
6. फेफड़ा
7. विगत वर्षों में कोई घातक बीमारी
8. कोई रोग
9. कोई विकलांगता
   अस्थायी या स्थायी
   कोई अन्य समस्या

(6) व्यक्तिगत मापन

1. अंतर्मुखी/ उभयमुखी/ बहिर्मुखी
2. माता-पिता के साथ व्यवहार : आक्रामक/ विनम्र/ पसंद
3. मित्र समूहों के साथ व्यवहार : नेतृत्व/ सहयोगी/ अनुगामी
4. शिक्षकों के साथ व्यवहार : सुझाव ग्राह्यता/ तर्कपूर्ण/ विचार विमर्श करने वाला/ निष्क्रिय
5. व्यक्तित्व : व्यवहार कुशल/अल्प संतुलित/ सांवेगिक
6. उपस्थिति : अति नियमित/ प्रायः नियमित/अनियमित
7. आज्ञापालन : सर्वदा आज्ञाकारी/ कभी-कभी आज्ञाकारी/धृष्ट
8. जिम्मेदारी : अति जिम्मेदार/ अल्प जिम्मेदार/गैर जिम्मेदार
9. परिश्रम : अति परिश्रमी/ सामान्य/ लापरवाह
10. गृह-कार्य : नियमित/ अनियमित/ गृह कार्य न करने वाला
11. आत्मविश्वास : सर्वदा/ प्रायः/ कदापि नहीं/ अति-विश्वासी
12. सहयोग : हमेशा/ बहुधा/ कभी-कभी/ कभी नहीं

(7) मनोवैज्ञानिक परीक्षण दित्ता

क्रम संख्या	वर्ष	वर्ग	परीक्षणों का नाम	प्राप्तांक एवं श्रेणी
1.				
2.				
3.				
4.				
5.				
6.				

(8) पाठ्य-सहगामी क्रियाएँ

क्रम संख्या	नाम	वर्ष एवं वर्ग	अभ्युक्ति
1.	खेलकूद		
2.	नाटकीय		
3.	साहित्यिक		
4.	समाजसेवा		
5.	व्यायाम		
6.	एन.सी.सी.		
7.	और कोई क्रिया-कलाप		

(9) विद्यालय के बाहर के क्रिया-कलाप

1. कार्यानुभव
2. रुचियाँ

(10) भविष्य की योजना

1. शैक्षिक
2. व्यावसायिक

परामर्शदाता तिथि प्रधानाध्यापक

कार्यदल विशेषज्ञों की सूची

1. डॉ. मोहम्मद हुसैन
   डिप्टी डायरेक्टर
   राजकीय शैक्षिक अनुसंधान एवं प्रशिक्षण संस्थान
   सहेली मार्ग
   उदयपुर (राज.)
2. कु. प्रितपाल कौर बैदवान,
   गाइडैंस काउंसलर
   राजकीय शैक्षिक संस्थान
   सैक्टर-32
   चंडीगढ़
3. डॉ.आर.पी. श्रीवास्तव
   प्रवाचक (शिक्षा)
   जामिया मिलिया इस्लामिया
   बी-147, अमर कालोनी
   लाजपत नगर
   नई दिल्ली
4. डॉ. श्रीमती सी.एम. मल्होत्रा
   समाजसेविका
   एयरफोर्स गोल्डन जुबली इन्स्टीट्यूट
   सुब्रतो पार्क
   दिल्ली कैन्ट
5. श्री.सी.जे. दोशी
   वोकेशनल गाइडैंस ऑफिसर (अवकाश प्राप्त)
   इन्स्टीट्यूट ऑफ वोकेशनल गाइडैंस
   नारायण पार्क
   अहमदाबाद
6. श्रीमती नलिनी जुनेजा
   रिसर्च एसोसियेट
   राष्ट्रीय शैक्षिक योजना एवं प्रशासन संस्थान
   नई दिल्ली

क्रम र
1.
2.
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7.

1. क
2. र्ग

1. शै
2. व्य

परामर्श

7. कु. नीलम
असिस्टैंट (गाइडैंस)
राजकीय शिक्षा संस्थान
चंडीगढ़

8. प्रो. के.जी. देसाई
रिटायर्ड प्रोफेसर, गुजरात युनिवर्सिटी
3, हिन्दू कॉलोनी
अहमदाबाद
गुजरात

9. डॉ. कुलदीप कुमार
योजना, प्रोग्रामिंग अनुवीक्षण एवं मूल्यांकन प्रभाग
नई दिल्ली

10. डा. श्रीमती आशा भटनागर
शैक्षिक मनोविज्ञान निर्देशन एवं परामर्श विभाग
नई दिल्ली

the actual conditions of industry or business. The usual arrangement is for the pupil to spend one-half his time in school and the other half in employment at an occupation which he expects to follow permanently Under the cooperative course the period of alternate work and school varies from one week to several weeks. In case of the diversified occupations program, one-half of each school day is usually spent in school and the other at work. In either case, the schoolwork is supposed to deal to a great extent with the theory and the related science or other matter of the occupation, and a representative of the school, called a "coordinator," has a certain amount of supervision over the employment, which is secured for the pupil by him

While the pupil enters this type of course with his choice of occupation made, nevertheless the first few months of work serve either to confirm that choice or to convince him that he has made a mistake. If he feels that a mistake has been made or if the coordinator comes to this conclusion, the two go over the matter together and decide upon some other occupation Such changes are quite common under this plan Indeed, it is an important feature of the plan that these changes should be made before a long period of training has been carried on and before full-time employment is begun.

A description of the diversified occupations program in Lewiston, Mont., a town of 6,000 population, will be found in the magazine *Occupations*, for February, 1935 [1]

Limitations of occupational exploratory experiences for pupils. There are, to be sure, important limitations upon exploratory experiences provided by the school. It has already been noted that experiences of this character now offered cover a comparatively narrow range of occupations Difficulties in the way of extending the range, either within the school or outside it, under school supervision have been noted also It is true, moreover, that actual conditions of employment as to hours of work, necessity for production, social environment, etc., are not reproduced in the school exploratory work On this account there are some pupils to whom the work of an exploratory course appeals who find themselves unsuited to the same work under the

[1] L O. Brockmann, "Guidance through Doing," *Occupations. The Vocational Guidance Magazine*, XIII (February, 1935), 413–416

actual conditions of industry or business. Then there is the difficulty of obtaining teachers who are technically well prepared to do this kind of teaching, and the further difficulty that few of those who have the technical preparation have anything like an adequate conception of the exploratory function of their work.

Many difficulties are encountered when one undertakes to provide exploratory experiences for pupils by placing them in part-time, afterschool, or vacation employment. Most junior high school pupils are too young to be placed in work that provides valuable exploratory experiences. Many employers will not be bothered with part-time or vacation workers of any age if they can help it. Even senior high school pupils find that few of the summer jobs open to them are in occupations that offer permanent attractions to them. Other limitations and difficulties might be mentioned

Yet, notwithstanding these limitations and difficulties, exploratory experiences in the high school period such as have been discussed in this chapter already are performing a large service in assisting boys and girls in choosing occupations

Not only have the various kinds of exploratory work discussed justified their place in the schools, they have pointed the way also to a much larger service in the future when a better understanding prevails of the high school's responsibility for providing adequate vocational exploratory opportunities to its pupils and of how this can be done more effectively. Predictions are always unsafe but present indications point to extensive developments in this type of work in the next few years.

There is nothing quite like experience in helping one decide whether or not he will like an occupation. Since the experience is sure to be more genuine if obtained under actual conditions of business or industry than if obtained in the school, it is probable that much of the development will be in exploratory experiences provided outside the school but arranged for and supervised by the school. We may expect that exploratory experiences will be supplemented more and more by tests of special aptitudes as these tests develop and are made more practicable for school use. But there seems little likelihood that special aptitude tests, important as they are likely to become, will ever take the place of exploratory experiences in a program of vocational guidance

SELF-ANALYSIS

As indicated earlier, the self-inventory service of a vocational guidance program includes provision for the individual to analyze and rate his personality assets and liabilities as well as to discover these by means of exploratory experiences. Also, as suggested earlier, self-analysis may really be considered as the effort of an individual to bring together in systematic form the facts as he sees them which have been revealed by his exploratory experiences of various kinds. These are the facts concerning his abilities, aptitudes, interests, and personality traits. It should be recognized that the exploratory experiences exercise a profound influence on one's courses of action, whether or not the self-analysis follows.

The function of the self-analysis in vocational guidance is to help the individual to see the facts more clearly, to evaluate them more accurately, and to relate them more directly to the problem of his vocational plans. While the prime concern here is with the significance of this process for vocational guidance, it should be kept in mind that self-analysis has significance also for educational, recreational, and community-service guidance. It is true, too, that a pupil's self-analysis is valuable to the counselor in interviews with that pupil as well as to the pupil directly.

Limitations of self-analysis. Several studies have been made which raise questions concerning the value of the self-analysis. Cogan, Conklin, and Hollingworth[1] found that the correlation between self-estimates of intelligence and scholastic records was consistently lower than that between intelligence test scores and scholastic records, also that "in general the error of self-estimation tends to be half again as great as the average error of the judgment of associates."

Hollingworth[2] and several other investigators report a tendency on the part of students to overrate themselves on desirable personal qualities and underrate themselves on undesirable

[1] LUCY C COGAN, AGNES M CONKLIN, and H L HOLLINGWORTH, "An Experimental Study of Self-analysis, Estimates of Associates, and the Results of Tests," *School and Society*, II (July 31, 1915), 171–179.

[2] H L. HOLLINGWORTH, *Judging Human Character*, New York D Appleton-Century Company, Inc., 1922.

qualities as compared with ratings made by their associates. For example, Hollingworth found that 80 per cent of the college students included in her study rated themselves higher on refinement than their associates rated them on the same quality. On the other hand, only 36 per cent rated themselves as snobbish to a higher degree than their associates rated them snobbish Other studies indicate that self-ratings by junior high school boys and girls are probably less accurate than those of college students. Finally, one investigator[1] concludes that some individuals overestimate themselves on all qualities and others underestimate themselves on all qualities.

In considering self-analysis it should be kept in mind that its value to the pupil directly and its value to the counselor for interviews with the pupil are two distinct things The pupil cannot avoid forming judgments concerning himself Self-analysis, as pointed out above, is merely a means by which this is done deliberately and in a systematic manner In this way the pupil should obtain a better understanding of what his assets and liabilities really are than he would if the matter were left entirely to chance, particularly if he is given proper assistance in making the analysis in a way that will be most useful to him

After all, it is not how other people rate his abilities and traits that will influence his course of action so much as it is how he rates himself As Koos and Kefauver point out, "students are guided in their thinking and planning on their own conception of their capacities and not on those they actually possess."[2] Moreover, in any particular case the fact that teachers or fellow pupils or both rate a pupil lower in certain respects than he rates himself is not adequate proof that his rating may not be the more accurate. It seems quite probable that, as a rule, junior high school pupils will be less accurate in their self-ratings than will college students for the simple reason that their exploratory experiences have been more limited They have not had as many opportunities to discover their capacities and limitations. This should be made clear to them when they are asked to rate themselves.

[1] EUGENE SHEN, "The Validity of Self-estimate," *Journal of Educational Psychology*, XVI (February, 1925), 104–107

[2] LEONARD V KOOS and GRAYSON N KEFAUVER, *Guidance in Secondary Schools*, p 232, New York The Macmillan Company, 1932

From the point of view of the counselor the mere fact that a pupil's rating of himself is higher or lower than his ratings by others is significant The counselor thus has an additional item of information concerning the personality of that particular pupil which will be useful in the counseling interview. However, the counselor will always find it wise to remember that a self-rating is a subjective judgment whose reliability is dependent to a considerable degree upon the maturity and experiences of the one who makes it. It must be kept in mind also that self-ratings furnish only a limited part of the evidence which must be taken into account Other needed evidence will be considered in the following chapters

Self-analysis a stimulus to the pupil. Another value of pupil self-analysis that is often stressed is that it stimulates the pupil to self-improvement Finding it necessary to rate himself on various qualities, he is brought face to face with his weaknesses, often with the result that he takes immediate steps to overcome them or, at least, to reduce them However, there are some sensitive individuals who are discouraged and disheartened rather than stimulated by this experience

Self-analysis blanks. Numerous blanks or forms for use in self-rating have been devised Among the more complete is that prepared by the Boys' Work Division of the International Committee of the Young Men's Christian Association, an organization that has been active in vocational guidance for many years. The blank is too long to be presented here but the introductory statement and Section B will give an idea of its nature

Self-analysis Blank for Purposes of Vocational Guidance Designed for Use by Older Boys under Direction of Adult Leaders

The purpose of this blank is to help older boys and young men locate their natural interests and capacities, particularly those which tend to show vocational tendencies

Do not hurry Selecting one's vocation is serious business

Be thoroughly honest Your own particular abilities are what you are seeking to discover

Let your answers indicate your present interests and ambitions for the future

Ask questions of your leader if in doubt at any point

Section B Personal Characteristics

1. Am I independent and self-reliant; do I like best to lead (in work, games, groups, or "stunts") or am I happier when another leads and I follow and help?

Think it over like this—

Would I rather be captain, the directing head? . . .

Or, would I just as soon have some leadership but not too much responsibility? . .. . .

Or, would I much rather do the actual work myself (as mechanic, farm worker, salesman, artist) and let someone else do the directing and the worrying? . . . .

2 Am I a team man; can I cooperate? . .

3. Do I take particular delight in discovering my own way to do things?

4 Am I naturally obedient, following instructions readily?
Or, do I like pretty much to rely on my own judgment? .

5 Is it difficult to make my mind stick to a particular thing at a particular time? . . .

6 Do I make a strong finish? . or quit rather easily? .

7. Is it easy and interesting for me to make new friends?
Or, do I enjoy more old friends and acquaintances? .

8 As a rule, am I happier when I am with other people?
Or, When I am alone?

9 Can I get along with most people? What sort of person annoys me most?

10 Thinking it over carefully, would I rate myself as extra good, fair, or poor on the following matters.

(Note· Put a check (✓) under Extra Good, Fair or Poor for each quality in the list)

	Extra good	Fair	Poor
Enthusiasm (full of earnestness or zeal)			
Carefulness (conscientious attention to details)			
Punctuality (being on time)			
Honesty (acting on the square, not somewhat lax)			
Energy (having drive and punch) ...			
Thrift (saving, not being an easy spender)			
Hopefulness (cheerful rather than gloomy)		.	
Self-confidence (not overdependent on others)		.	

11. (a) Have you any habits which you feel might keep you from the largest success in life? .

(b) Would you like help or suggestions about avoiding or overcoming certain habits or temptations? .. .. .

Brewer and Lincoln devised the score card shown on page 160, which provides for self-rating in comparison with the require-

A SCORE CARD FOR THE OCCUPATION AND YOURSELF*
(A Comparison of the Needs of the Occupation with Your Ability)

Name Date
Qualities required for success in the occupation of
and the qualities I can develop in that occupation

Directions: This exercise is planned to aid you in thinking about your future occupation The first column relates to the qualities demanded by the vocation, the second, to the qualities you can develop if you choose to enter that occupation At the bottom are spaces for additional qualities required Mark an X in the appropriate column 60, very little, 70, not very much, 80, average amount, 90, above average, 100, very great amount

	Vocation needs					I can develop				
	60	70	80	90	100	60	70	80	90	100
1 Ability to attend to details										
2. Ability to cooperate, tact										
3 Ability to follow directions										
4 Ability to lead other people										
5 Ability to use good English										
6 Accuracy										
7 Adaptability to change and surprise										
8 Cheerfulness										
9 Common sense, good judgment										
10. Courage										
11 Courtesy										
12 Earnestness										
13 Ideals of good citizenship										
14 Ideals of honesty										
15 Ideals of service and unselfishness										
16 Imagination, foresight, planning										
17 Initiative, resourcefulness										
18 Liking for work indoors, † outdoors										
19 Liking for sameness, † variety										
20 Mechanical skill										
21 Mental ability and capacity										
22 Orderliness, system, neatness										
23 Perseverance, industry										
24 Physical strength, health, vigor										
25 Promptness, punctuality										
26 Responsibility, trustworthiness										
27 Self-control, patience										
28 Sense of humor										
29 Speed of work										
30 Sympathy										

* JOHN M BREWER and MILDRED E LINCOLN, reproduced by courtesy of the C H Stoelting Company, Chicago, Ill

† Cancel the quality not required by the vocation

ments of an occupation. However, this score card calls for an estimate of the degree to which the individual who fills it out can develop each of the various qualities on the list, rather than for his estimate of the degree to which he possesses them at the time Jones[1] suggests the desirability of adding another column to the card with the heading "What I Have Now."

A "Questionnaire for Self-analysis" containing 50 questions, some of a general nature, will be found in Rosengarten's book entitled *Choosing Your Life Work*[2] Myers, Little, and Robinson's book for high school students, *Planning Your Future*,[3] contains a self-rating chart comprising 21 characteristics on which the pupil is asked to rate himself very poor, poor, fair, good, or excellent.

Making self-analysis more valuable for vocational guidance purposes While recognizing its limitations, most authorities are agreed that self-analysis is an important part of a comprehensive program of vocational guidance. Koos and Kefauver sum up the matter in these words.

> Self-ratings are important in a program of guidance They supplement other sources of information about the student They indicate the nature of the student's judgment concerning himself, a judgment that is a primary factor in the selection of types of education and of vocations To be sure, they cannot be accepted as correct estimates[4]

There are some, however, who would discourage the use of self-analysis, on the ground that the information gathered in this way is unreliable. For the most part these are thinking of the value of this material to the counselor rather than in terms of the value of self-analysis to the pupil himself. In fact, this point of view is implied in the comment just quoted from Koos and Kefauver Viewed as a means of helping the pupil to bring together the results of his exploratory experiences of all sorts in an effort better to understand himself, it has far greater value

[1] ARTHUR J JONES, *Principles of Guidance*, 2d ed., p 185, New York: McGraw-Hill Book Company, Inc , 1934

[2] WILLIAM ROSENGARTEN, *Choosing Your Life Work*, 3d ed , pp 34–36, New York Whittlesey House, McGraw-Hill Book Company, Inc , 1936

[3] GEORGE E MYERS, GLADYS M LITTLE, and SARAH A ROBINSON, *Planning Your Future*, p 412, New York: McGraw-Hill Book Company, Inc , 1940

[4] KOOS and KEFAUVER, *op. cit*, p. 236

than as an aid to the counselor. Instead of discouraging the use of self-analysis, guidance workers should seek by every possible means to improve its techniques, to the end that the individual's self-ratings become more accurate, and by providing for more extensive study and use of the results by the pupils themselves There can be little doubt that with a proper understanding on the part of the pupil of its purposes, with a proper setting or "atmosphere" when the blank is filled out, and with a better knowledge of ways to use the information recorded, the self-analysis will become of greater value to the pupil directly, and also indirectly through its use by the counselor.

Summary

The function of the self-inventory service of a vocational guidance program is to give the individual an awareness of his personal assets and liabilities. Exploratory experiences and self-analysis are the principal means used by the schools in accomplishing this purpose. Counseling, which will be discussed in a separate chapter, also contributes to this end While both exploratory experiences and self-analysis also furnish the school staff with valuable information for vocational guidance purposes their great importance lies in their direct value to the pupils themselves.

Authorities on the junior high school are agreed that exploration by the pupil of his individual tastes, interests, capacities, and other personal characteristics is one of the most important functions of this school The senior high school, junior college, and even higher educational institutions also serve this purpose but in none of them is it so dominant as in the junior high school

Certain groups of subjects especially in the junior high school —agricultural, business, homemaking, and industrial arts—are often referred to as tryout or exploratory subjects. The extent to which they are offered and their real value as exploratory experiences differ greatly in different schools Many teachers of these subjects never think of their work in terms of its value to their pupils in discovering and trying out their aptitudes and interests. It is true, also, that the number of specific occupations for which exploratory courses are provided in junior and senior high school combined is relatively small. In general, however, this objection is not very significant since such courses explore

the more important occupations in which large numbers of people are employed. Courses offered for exploratory purposes will no doubt be far more effective when those who teach them feel keenly the responsibility for helping pupils discover their personal assets and liabilities, when a larger number of elements from the occupations for which the course is exploratory are introduced, and when methods of instruction are used which take account more fully of conditions and practices in the occupations concerned. And the general education values of the course also may be increased by these means. Thus far no satisfactory method of measuring the value of these courses for vocational exploratory purposes has yet been devised, desirable as this would be.

To be sure, all subjects taught in secondary schools serve a vocational exploratory purpose to a greater or less extent It is desirable that this be more fully appreciated by school people and steps taken to enhance the exploratory values of the entire group of subjects included in the program of studies.

While the activities program is already an important means of exploring vocational interests and aptitudes, its value for this purpose may be greatly increased by careful planning to this end

Efforts to use part-time, afterschool, and vacation employment for occupational exploratory purposes have met with some success. The fact that this method provides the exploration under actual working conditions makes it peculiarly valuable. But age and other restrictions on employment of youth are a limiting factor.

Notwithstanding their limitations, occupational exploratory experiences provided by means of school courses, extracurricular activities, and part-time employment seem destined to play a more important part in vocational guidance for the reason that no other means of finding out one's suitability for an occupation is so effective as is doing the things of the occupation.

Self-analysis may be considered as an effort to bring together in systematic form the facts one has learned concerning himself by means of various exploratory experiences. Self-analysis is intended to help the individual to see these facts more clearly, to evaluate them more accurately, and to relate them more directly to his vocational plans. While it has important limitations, when a properly prepared blank or form is used and the matter is

wisely presented to youth, self-analysis is an important technique of vocational guidance. Often, also, it stimulates the individual to efforts in the direction of self-improvement, since it brings him face to face with his weaknesses. It is desirable that efforts be made by guidance workers to obtain more accurate and dependable self-analyses rather than to ignore this guidance technique.

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CHAPTER X

THE PERSONAL DATA COLLECTING SERVICE GENERAL DATA, PHYSICAL DATA, INTELLIGENCE RATINGS

In the two preceding chapters attention has been given to services provided by the school for the purpose of helping the individual student to acquire information concerning occupations and concerning his own assets and liabilities. The objective of these two services is to supply the individual with basic data that should be helpful to him in arriving at an occupational choice. It hardly need be said that similar data concerning school, recreational, and community-service opportunities and requirements, and the same data concerning himself are necessary if the individual is to make wise educational, recreational, and community-service plans And, it may be remarked in passing, assistance in making these plans should not be overlooked just because emphasis is placed on vocational plans. In fact, the latter cannot be worked out successfully independently of educational, recreational, and community-service plans

Attention must now be turned to the equally important service of supplying the school with data concerning the individual student for use in the vocational counseling, placement, and follow-up services which will be considered in later chapters Here, as in the previous chapter, individual differences are fundamental. Again it should be kept in mind that the data under discussion are basic for guidance services in other fields as well as in the vocational.

Kinds of personal data needed. What does the vocational counselor need to know concerning the individual whom he undertakes to assist in the difficult task of choosing a suitable vocation? Writers on the subject are generally agreed that provision should be made for bringing together the following types of data for use in counseling and also in placement and follow-up work.

1. General data—information that will be helpful in locating the individual and in making contacts with those who have responsibility for him.

2 Physical data—information concerning the individual's health and physical characteristics

3 Psychological data—information concerning the individual's mental characteristics such as intelligence, special aptitudes and limitations, and personality traits

4 Social environment data—information concerning home and other social environment conditions and factors that influence or seem likely to influence the individual in his vocational plans.

5. Achievement data—information concerning what the individual has done both in school and outside of it.

6 Data concerning the individual's educational and vocational plans.

Completeness of needed data. Obviously any one of the six items in the above list may be dealt with in general terms or in great detail. The picture presented may be impressionistic in character or as detailed as a Corot However, in actual practice there is no object in bringing together more information concerning any item in the list than seems likely to be used. Much criticism has been leveled, and justly, at wasting the time of teachers and others in piling up data that are never used. Provision for use of the data gathered must, therefore, determine the completeness of the record.

If a well-planned counseling program is in effect, or is soon to be in effect, with an adequate staff of counselors who have the knowledge and the skill and the will to use such material effectively, then fairly complete data are desirable. If, on the other hand, the counseling setup is weak, it is usually wasteful to provide such a well-selected kit of high grade tools as make up a good system of personal data records for use in the counseling service. In any given situation the person responsible for the vocational guidance program, in conference with his superior officers and with his fellow teachers in the school system, should determine just what parts of the data discussed in this chapter are needed. It is understood, of course, that some of the data thus assembled will be used in other parts of the school program as well as in vocational guidance.

General Data

A limited amount of general information concerning every pupil is, of course, necessary Its purpose is to facilitate contacts with the pupil and with those who are most directly concerned with his welfare. The information needed includes the pupil's name, street address, and telephone number, the name of parent or guardian, and of home-room teacher or other school sponsor. His school program for the current semester, giving the room in which he may be found at any school period of the week is, also, an important part of the general data needed.

Physical Data

Of course, the race, sex, and date of birth—year, month, and day of the month—are the first items that claim attention. Height and weight, when considered in relation to physical maturity, are important as indicating fitness or unfitness for certain types of occupations. Physical handicaps, if any, should be considered, including hearing (percentage of normal for each ear); sight (percentage of normal and nature of correction made for the defect); color blindness, deformity of limbs or body (nature and extent of defect) Other items of information needed include condition of heart; condition of lungs; condition of nervous system; past sicknesses (nature of, when, how serious). A photograph of the individual is considered desirable by some as an aid in recalling his personality characteristics when consulting his records This is particularly valuable in connection with the placement service, but is often useful also to a counselor in preparing for a counseling interview.

While their immediate value in vocational counseling seems to be negligible, it is quite possible that fingerprints may be added to the physical data recorded in the school for use in connection with placement and for other purposes.

Because changes in some of the physical data listed above may be considerable in an individual during the six years that make up the secondary school period, it is, of course, necessary that the record be brought up to date from time to time and the time of recording be given The same is true, to a lesser extent, after the individual passes beyond the high school period

Psychological Data

It has already been noted that the psychological data needed for vocational guidance purposes are of three different kinds—data concerning the individual's intelligence, his special aptitudes, and his personality traits. It seems best to consider each kind separately, beginning with data concerning intelligence.

Nature of intelligence. While in recent years the term "intelligence" has been used extensively in the literature of education, it is not always clear just what the person who uses it means by the term. Some writers seem to assume that their readers will understand what is meant while others apparently have themselves only a very hazy concept of the term. This is not surprising when one considers the state of mind on this matter among well-known psychologists. Witty points out that "during the period of rapid increase in the number of instruments for the measurement of intelligence, few persons sought an answer to the question: What is intelligence? Most mental testers blithely tested intelligence without seriously inquiring about that which they were trying to measure."[1]

Hines starts his discussion of the nature of intelligence with the statement "No one knows precisely what intelligence is."[2] Of course, the same might be said of electricity. However, notwithstanding the difficulties involved in the undertaking, the author of this book feels under obligations to his readers to present briefly certain points of view expressed by psychologists concerning the nature of this elusive human characteristic. Readers must have some idea of the sense in which the term is used if they are to understand the author's discussion of intelligence testing in relation to vocational guidance.

Terman, whose contribution to the development of intelligence tests is as important as that of any other American psychologist, says: "An individual is intelligent in proportion as he is able to carry on abstract thinking."[3]

[1] PAUL O. WITTY, "Intelligence: Its Nature, Development, and Measurement," in *Educational Psychology*, by CHARLES E. SKINNER and associates, p. 438, New York: Prentice-Hall, Inc., 1936.

[2] HARLAN CAMERON HINES, *Measuring Intelligence*, p. 1, Boston: Houghton Mifflin Company, 1923.

[3] L. M. TERMAN, "Intelligence and Its Measurement," *Journal of Educational Psychology*, XII (March, 1921), 128.

Van Wagenen treats intelligence as "capacity to learn and to adjust to relatively new and changing conditions."[1]

Freeman expresses much the same idea as Van Wagenen when he says: "Intelligence is represented in behavior by the capacity of the individual to adjust himself to new situations, to solve new problems, to learn "[2]

Boynton defines intelligence as "an inherited capacity of the individual which is manifested through his ability to adapt to and reconstruct the factors of his environment in accordance with the most fundamental needs of himself and his group "[3] He stresses the inherited character of intelligence further when he says

> It seems that intelligence should be restricted solely to those characteristics which are heritable, it should be made entirely independent of the amount of knowledge which a person has Thus intellect is seen to be a more inclusive term, incorporating not only the idea of inherited capacity, but also the idea of acquired ability or knowledge [4]

Spearman has presented what is called the "two-factor theory" of intelligence, one factor being general and the other specific.[5]

Thorndike at one time considered it desirable to recognize three kinds of intelligence; namely, abstract, mechanical, and social,[6] the first of the three being defined much as Freeman defines intelligence

Thurstone has recently stressed what is called the "factorial analysis" theory which recognizes intelligence as consisting of several abilities, seven of which have thus far been identified. (1) number facility, (2) word fluency, (3) visualizing, (4) memory,

[1] M. J Van Wagenen, "Intelligence and Its Measurement," in *Readings in Educational Psychology*, by Charles Skinner and associates, p. 401, New York Farrar & Rinehart, Inc , 1937

[2] Frank N. Freeman, *Mental Tests*, pp. 489–491, Boston Houghton Mifflin Company, 1926

[3] Paul L. Boynton, *Intelligence: Its Manifestations and Measurements*, pp. 19–20, New York: D Appleton-Century Company, Inc., 1933

[4] *Ibid*, p. 20.

[5] Charles S. Spearman, *The Nature of Intelligence and the Principles of Cognition*, pp. 5–6, 341–343, New York: The Macmillan Company, 1927

[6] Witty, *op cit.*, p 439

(5) perceptual speed, (6) induction, and (7) verbal reasoning[1] He implies that others may be added to the list as the result of later and more thorough analysis

Examination of these definitions indicates a rather surprising amount of agreement as to the nature of intelligence. Some prefer to break it up into its elements rather than to treat it as a unit. Some stress more than others the idea that it is inherited —a native capacity. Careful reading of the various authorities quoted would reveal differences of opinion concerning the modifiability of intelligence under the influences of environment. But through all of the concepts of the term presented there appears the idea so well phrased by Freeman "capacity of the individual to adjust himself to new situations, to solve new problems, to learn"[2]

While psychologists are agreed that it is quite impossible at any point in an individual's life to make a clear-cut distinction between his native capacity "to adjust himself to new situations, to solve new problems, to learn" and the effects of general environment and formal education upon that capacity, nevertheless it has long been recognized both by psychologists and by laymen that there are important differences among individuals in such native capacity In this respect human beings are not born equal They range from the helpless idiot on the one hand to the most brilliant all-round genius on the other These two appear at birth to be equally helpless One, lacking in that native capacity, remains helpless as long as he lives, in spite of the most favorable environment The other, rich in this same native capacity, develops rapidly under the influences of environment until he is able to take at full stride life's most difficult situations There is ample evidence to indicate that human beings as a whole are distributed between these two extremes of native capacity in accordance with the normal curve of distribution

Even those who insist most strongly that an important part of an individual's intelligence as defined by Freeman is the result of environmental influences are ready to grant that by far the larger part is inherited According to a summary of the scientific evidence on this point made by Burks, about 17 per cent of the

[1] L. L Thurstone, "A New Conception of Intelligence," *Educational Record*, XVII (July, 1936), 441–450.

[2] Freeman, *op cit*

differences in intelligence among individuals is due to differences in home environment, though "home environment in rare, extreme cases may account for as much as 20 points of increment above the expected, or congenital, level."[1] While Wellman and Stoddard maintain that their recent studies "reveal large changes in I Q in both upward and downward directions,"[2] due to changes in environment, they indicate that the favorable period for such changes in I Q is early childhood This means that at the high school age an individual's intelligence is relatively stable—that its modifiability is limited rather narrowly. Bingham concludes that, according to the evidence now available, there is about 1 chance in 22 that during a four-year high school period an I Q will increase or decrease as much as 12 per cent.[3]

School attainment as a measure of intelligence. In this connection it should be kept in mind that school attainment by the pupil long was the only generally accepted measure, and still is an important measure, of that pupil's intelligence It must be recognized that, taking pupils as a whole, school attainment has proved a fair test of this quality Those who pass from grade to grade with little or no difficulty until they graduate from high school, taken as a group, are undoubtedly superior in intelligence to the group consisting of those who drop out before reaching the goal of graduation The school is a selective agency which sifts out individuals of low intelligence Many employers recognize this and insist upon employing only high school graduates, not so much because of the superior training of these but because they have gone through a selective process which has tested their intelligence and certain other qualities that the employer considers important.

But the school functions far from perfectly as a sieve of intelligence A considerable number of very capable boys and girls find their way in some manner through its meshes, while others of very mediocre ability stay in throughout the high

[1] BARBARA S BURKS, *Nature and Nurture Their Influence upon Intelligence*, Twenty-seventh Yearbook, National Society for the Study of Education, Part I, Chap X, p 223, Bloomington, Ill Public School Publishing Company, 1928.

[2] BETH L WELLMAN and GEORGE D STODDARD, "The IQ A Problem in Social Construction," *The Social Frontier*, V (February, 1939), 151.

[3] WALTER VAN DYKE BINGHAM, *Aptitudes and Aptitude Testing*, p 40, New York Harper & Brothers, 1937

school period Besides, in counseling, one does not know generally which pupils will remain through high school and which will drop out at the various stages along the way. The counselor has to deal with differences in intelligence among those who are in school at any given time Moreover, among those who graduate or reach any other particular level of attainment, there are striking differences in the quality of work done and equally striking differences in marks or grades received for work which is substantially of the same quality.

It is a well-known fact that a pupil's marks in school subjects do not always indicate his ability to meet even the situations presented to him by those subjects, to say nothing of life situations generally. It is highly desirable, therefore, that for vocational guidance purposes the school attainment of pupils both with respect to the grade level reached at a given age and with respect to the quality of work done as shown by school marks received, should be supplemented by a more accurate and less subjective measure of intelligence

The nature and purpose of intelligence tests. In order to provide a means of measuring more accurately and more quickly than by achievement in school subjects what he chose to call the "general intelligence" of children, Alfred Binet, a French psychologist, devised and presented to the world a little more than 30 years ago a measuring instrument of general intelligence These tests were further developed with the assistance of an associate, Simon, and became known as the Binet-Simon tests They were adapted to use in America by Lewis M Terman of Stanford University, under the name "Stanford Revision of the Binet-Simon Tests of General Intelligence"

It is necessary that each child who takes the Binet-Simon tests, either in the original form or as revised by Terman, does so individually The tests consist of a variety of questions to be answered and things to be done, mainly the latter, based upon the environmental experiences of child life and graded according to age. The tests seek to measure not primarily knowledge but ability to use knowledge readily in meeting situations It is assumed that the child in a given group who meets most successfully, age considered, the carefully selected situations provided by the tests is the most intelligent, and the child who meets these situations least successfully is the least intelligent of the group

By giving the tests to a large number of children of different ages from different social environments, norms were established for each age. After these norms were established it became possible to give the tests to a child of given age and compare his test score with the norm for that age If the score is greater than the norm the child is rated as above average in intelligence; if less than the norm, he is rated as below average in intelligence. Thus it becomes possible to determine the "mental age" of a child, this being greater than his chronological age if he is above average, and less than his chronological age if below average in intelligence. For example, a twelve-year-old child whose rating is 10 per cent above the norm for twelve years is considered as having a mental age 10 per cent above his chronological age, or thirteen and two-tenths years.

The term "intelligence quotient" (I.Q) was adopted to indicate the result obtained by dividing the mental age by the chronological age and multiplying the result by 100. The twelve-year-old child just mentioned would thus have an I Q of 110. Were his rating the same as the norm for twelve-year olds his mental age would be the same as his chronological age and his I Q would then be exactly 100. Thus, once the validity and reliability of tests of this kind are accepted and the tests are scored properly, there becomes available a means of comparing the intelligence of individuals just as it has long been possible to compare their height or weight. To put the matter differently, it becomes possible to tell how tall an individual is in the matter of intelligence.

Group tests of intelligence. Soon after the Stanford Revision of the Binet-Simon Tests was presented to the public it became evident that testing individuals one at a time was too slow for practical purposes if intelligence-tests results were to have extensive use Therefore, psychologists devised tests, observing the same general principles as those governing the development and use of individual tests, that could be given to a large group at one time. The Army Alpha and Beta tests, developed during the First World War for use in testing army personnel, constitute an outstanding illustration of this effort. The Terman Group Test and the Otis Self-Administering Test are other well-known illustrations.

Accuracy and reliability of intelligence tests. When the complex nature of the thing to be measured, the newness of the

effort to provide a suitable measuring instrument, and the carelessness and inexperience of many who have attempted to use this instrument are considered, it is not surprising that there is still much popular skepticism concerning the accuracy and reliability of these tests To be sure, no one claims for them that they can be applied to any human mind with the accuracy attained in linear measure. In fact, it is generally agreed that results obtained from their use should be looked upon as approximate rather than as accurate measures But anyone who investigates the matter in a thorough, scientific manner must grant that a well-chosen intelligence test properly administered and scored is a better measure of abstract intelligence than school records or anything else yet devised, and that such a test has the great advantage of requiring only a brief time to obtain the result In this connection it is well to remember that as simple an instrument of measurement as the yardstick required decades of time and even a royal decree to bring it general acceptance as a standard of measure And centuries more passed before linear measure attained that degree of accuracy required in industry today which is represented by the Johansen blocks, accurate to a millionth of an inch

Terman's results. More than 20 years ago Terman found, as a result of giving the Stanford Revision of the Binet-Simon Intelligence Tests to 1,000 children selected at random, that their intelligence quotients were distributed as follows.

The lowest 1% go to 70 or below, the highest 1% reach 130 or above
The lowest 2% go to 73 or below, the highest 2% reach 128 or above
The lowest 3% go to 76 or below, the highest 3% reach 125 or above
The lowest 5% go to 78 or below, the highest 5% reach 122 or above
The lowest 10% go to 85 or below, the highest 10% reach 116 or above.
The lowest 15% go to 88 or below, the highest 15% reach 113 or above
The lowest 20% go to 91 or below, the highest 20% reach 110 or above
The lowest 25% go to 92 or below, the highest 25% reach 108 or above
The lowest 33⅓% go to 95 or below, the highest 33⅓% reach 106 or above [1]

Making allowance for the fact that boundary lines between the groups mentioned below are arbitrary, Terman suggested the following classification of intelligence quotients.

[1] L M Terman, *The Measurement of Intelligence*, pp. 78–79, Boston Houghton Mifflin Company, 1916.

I Q	Classification
Above 140	"Near" genius or genius
120–140	Very superior intelligence
110–120	Superior intelligence
90–110	Normal or average intelligence
80–90	Dullness rarely classifiable as feeble-mindedness
70–80	Border line deficiency, sometimes classifiable as dullness, often as feeble-mindedness
Below 70	Definite feeble-mindedness*

* L M TERMAN, *The Measurement of Intelligence*, pp 78–79, Boston Houghton Mifflin Company, 1916

By comparing these two tables it will be seen that, according to Terman, approximately 20 per cent have superior intelligence or better, 60 per cent have approximately average or normal intelligence, and 20 per cent fall below normal in the dull and feeble-minded groups. These results of Terman's early investigations are not greatly modified by his later researches which culminated in a recent revision of his tests [1]

Army intelligence tests results. A very similar classification resulted from giving the Army tests of intelligence to 1,700,000 draft soldiers during the First World War as will be seen from the following familiar table:

DISTRIBUTION OF INTELLIGENCE AS SHOWN BY THE ARMY INTELLIGENCE TESTS*

Intelligence grade	Definition	Score	Approximate per cent
A	Very superior	135–212	4 5
B	Superior	105–134	9 0
C+	High average	75–104	16 5
C	Average	45–74	25 0
C−	Low average	25–44	20 0
D	Inferior	15–24	15 0
D − and E	Very inferior	0–14	10 0

* From C S YOAKUM and ROBERT M YERKES, *Army Mental Tests*, p 17. New York Henry Holt & Company, Inc , 1920

In discussing these letter ratings, Yoakum and Yerkes go on to say.

A = Very superior intelligence. This grade is ordinarily earned by only four or five per cent of a draft quota The "A" group is composed

[1] L M TERMAN and MAUD A. MERRILL, *Measuring Intelligence*, Boston Houghton Mifflin Company, 1938.

of men of marked intellectuality "A" men are of high officer type when they are also endowed with leadership and other necessary qualities.

B = Superior intelligence. "B" intelligence is superior, but less exceptional than that represented by "A." The rating "B" is obtained by eight to ten soldiers out of a hundred The group contains many men of the commissioned officer type and a large amount of noncommissioned officer material

C+ = High average intelligence. This group includes fifteen to eighteen per cent of all soldiers and contains a large amount of noncommissioned officer material with occasionally a man whose leadership and power to command fit him for commissioned rank.

C = Average intelligence It includes about twenty-five per cent of the soldiers Excellent private type with a certain amount of fair noncommissioned officer material

C− = Low average intelligence This group includes about twenty per cent Although below average in intelligence, "C−" men are usually good privates and satisfactory in work of a routine nature

D = Inferior intelligence It includes about fifteen per cent of soldiers "D" men are likely to be fair soldiers, but they are usually slow in learning and rarely go above the rank of private They are short on initiative and so require more than the usual amount of supervision Many of them are illiterate or foreign

D− and E = Very inferior intelligence This group is divided into two classes (1) "D−" men, who are very inferior in intelligence but are considered fit for regular service, and (2) "E" men, those whose mental inferiority justifies their recommendation for development battalion, special service organization, rejection, or discharge. The majority of "D−" and "E" men are below ten years in "mental age "[1]

Intelligence ratings and school expectancy. Since this chapter is concerned with collecting data for use by the school in its vocational guidance activities, the significance of an individual pupil's intelligence rating for this purpose claims attention How is this rating of value, for example, in counseling a high school boy or girl concerning vocational plans? It is clear from the data already presented, namely, those obtained by Terman from individual tests and by the Committee on the Classification of Personnel in the Army from group tests—data supported and substantiated by the results of tests given more recently to hundreds of thousands of school children—that a pupil's intelli-

[1] C S YOAKUM and ROBERT M YERKES, *Army Mental Tests*, pp 22–23, New York Henry Holt & Company, Inc., 1920

gence rating must have an important relation to the amount of schooling which it is practicable for him to undertake Both Terman and Yoakum and Yerkes made pertinent comments on this point several years ago

Terman said "Those testing 80 to 90 (I Q.) will usually be able to reach the eighth grade, but ordinarily only after from one to three or four failures "[1] Referring to those whose I Q 's are 90 to 100, he said:

> The high school does not fit their grade of intelligence as well as the elementary and grammar schools High schools probably enroll a disproportionate number of pupils in the I Q range above 100 That is, the average intelligence among high school pupils is above the average for the population in general It is probably not far from 110 College students are, of course, a still more selected group, perhaps coming chiefly from the range above 115 [1]

It will be recalled that according to Terman about 20 per cent have an I Q of 90 or less and about 80 per cent have an I Q. of 110 or less

In discussing the same point in terms of the Army Alpha Test, Yoakum and Yerkes put it this way

> The immense contrast between "A" and "D−" intelligence is shown by the fact that men of "A" intelligence have the ability to make a superior record in college or university, while "D−" men are of such inferior mentality that they are rarely able to go beyond the third or fourth grade of the elementary school, however long they attend In fact, many "D−" and "E" men are of the moron grade of feeble-mindedness "B" intelligence is capable of making an average record in college. "C+" intelligence cannot do so well, while mentality of the "C" grade is rarely capable of finishing a high school course [2]

The conclusions expressed by Terman and by Yoakum and Yerkes are substantiated by later investigations In an unpublished study of the general intelligence of pupils who completed different grades, made by the Department of Special Education of the Detroit school system, results given in the following table were obtained The tests used were the Detroit Alpha Intelligence Tests, a modification of the Army Alpha Test The table presents results obtained in January, 1926, from 2,469 pupils who

[1] TERMAN, *op cit.*, pp 93–94

[2] YOAKUM and YERKES, *op. cit*, p. 23

then completed the sixth grade, 2,198 who completed the eighth grade in eight-grade elementary schools, 610 who completed the ninth grade in three intermediate or junior high schools, and 1,085 who completed the twelfth grade.

INTELLIGENCE RATINGS OF PUPILS COMPLETING CERTAIN GRADES

Number of cases	Grade completed	Per cent making each score						
		A	B	C+	C	C−	D	E
2,469	6th	11	13	16	23	15	11	11
2,198	8th	16	15	19	23	14	9	4
610	9th	23	22	20	20	9	4	2
1,085	12th	48	31	15	5	1		

It will be noted that of those completing the sixth grade 40 per cent were above the average C; of those completing the eighth grade, 50 per cent, of those completing the ninth grade, 65 per cent; and of those completing the twelfth grade, 94 per cent While these percentages would probably be different under the changed conditions of 1940, the higher grades would still show decidedly larger percentages of pupils above the score of C than would the lower grades

Proctor's report upon 131 pupils who entered high school and stayed long enough to make any scholastic record shows that 101 graduated, of whom 65 were very superior, superior, or above average in intelligence as measured by the Stanford Revision of the Binet-Simon individual tests Of the remainder, 27 were average and 9 below average [1]

It is, then, possible to predict from an individual's intelligence rating about how far he is likely to be able to go with his school and college education This does not mean that he will go this far He may lack the necessary "drive" or the financial means or the proper encouragement It means only that he has the intelligence needed in order to go this far Nor does it mean that all with lower intelligence will be unable to reach this same level. Some individuals, superior in other respects but relatively low in intelligence, will go farther in their schooling than could be predicted on the basis of their intelligence ratings only How-

[1] WILLIAM MARTIN PROCTOR, *Educational and Vocational Guidance*, p 31, Boston. Houghton Mifflin Company, 1925

ever, it can be said with assurance that in the former case the chances are much more favorable than in the latter for completion of a certain level of educational achievement, such as graduation from high school or college. Since entrance upon many vocations, especially in the professional field, depends upon extensive special preparation and the special preparation can be undertaken only by those who are high school graduates or college graduates, as the case may be, then the individual's intelligence rating is of great significance to the counselor who is helping him to decide upon the vocation for which he should prepare For example, if his intelligence is only average, his chances of being able to meet the entrance requirements of a medical school are almost negligible, to say nothing of his chances for graduation in medicine and admission to practice of the profession later. Yet it was found in a recent unpublished study of occupational choices in relation to intelligence ratings that 51.5 per cent of intermediate or junior high school boys who aspired to the professions have intelligence ratings of C+ or lower by the Detroit Alpha tests.

Since there is a growing tendency to set up hurdles of general education and to raise them from time to time, not only for admission to preparation for professional occupations but in some cases for admission to lower level occupations, there is growing need that ability to leap such hurdles be considered in giving vocational counsel If high school graduation should become a requirement for entrance upon apprenticeship in the various skilled trades, then ability to graduate from high school as indicated by intelligence rating must be considered in counseling concerning such work unless high school graduation requirements are modified to meet the situation

Intelligence requirements for different occupations. Not only are certain limitations placed by one's intelligence upon his chances to prepare for, and in some cases to enter, certain occupations. Much more important for one's vocational success is the fact that vocations differ a great deal with respect to the intelligence possessed, as measured by intelligence tests, by the great majority of those who work with efficiency and satisfaction in them Physicians as a group rate high in intelligence. Laborers as a group rate low. In fact, there is evidence that occupations can be classified, somewhat roughly to be sure, according to the

median intelligence of those who work at them It is obvious that in so far as occupations can be thus classified, the intelligence of individuals becomes of importance in guidance work.
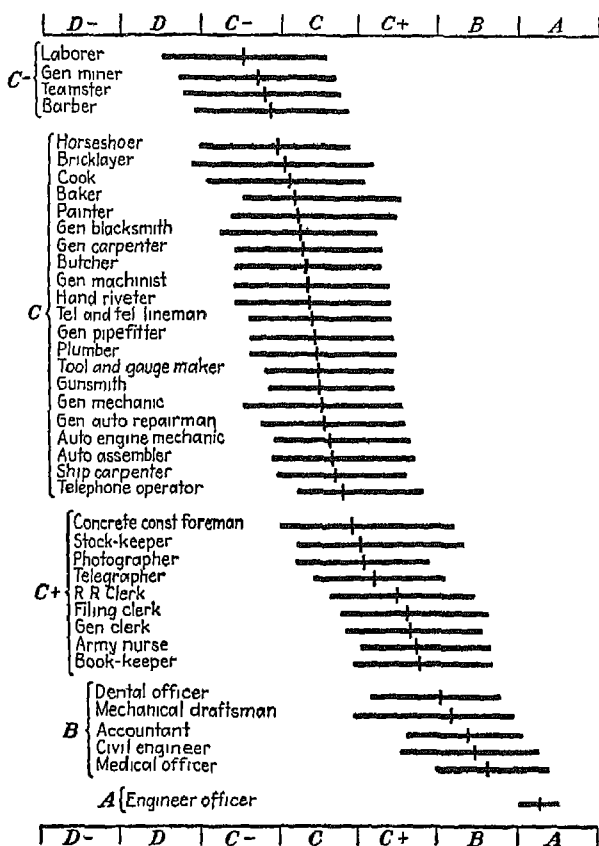
CHART 1 —OCCUPATIONAL INTELLIGENCE STANDARDS

Based on data for 18,423 men Data taken from soldiers' classification cards Length of bars shows range of middle 50 per cent. Vertical crossbar shows position of median (*From Yoakum and Yerkes, Army Mental Tests*, p 198, *New York Henry Holt & Company, Inc* , 1920)

Attention must, therefore, be given to the question of intelligence ratings of workers in different occupations

The chart on this page shows the relation of intelligence to occupation as reported by Yoakum and Yerkes on the basis of a study of 18,423 men in the army during the First World War

The information concerning the occupations of these men was taken from their classification cards The authors point out that the data are not comparable with those which would be obtained from civilian groups because of various selectional factors which appear in the army. For instance, many highly skilled workers in certain trades were exempted from military service in order to work on the production of arms and munitions of war. Nevertheless, there is evidence that the relative positions of the large occupational groups would be the same though important changes within the groups would no doubt appear if a similar number of civilians were studied in the same way

Fryer marks off quite definitely five occupational levels as follows

I Professional occupational level. (Superior intelligence required)
II Technical occupational level. (High average intelligence required)
III Skilled occupational level (Average intelligence required)
IV Semi-skilled and low-skilled occupational level (Low average intelligence required)
V. Unskilled occupational level. (Inferior intelligence required)[1]

Fryer has gone so far as to make a list of 96 occupations for each of which he gives the intelligence group, the score average, and the score range in terms of the Army Alpha tests For example, for an accountant the intelligence group is A, the score average is 137, and the score range is 103–155 For a chauffeur the intelligence group is C, the score average is 65, and the score range is 43–91 According to Fryer this means that a man who wishes to be a chauffeur will stand the best chance of "achievement in the occupation" if he ranks in intelligence group C, has an intelligence rating near 65, and is neither below 43 nor above 91

The Minnesota Occupational Rating Scales developed more recently provide for six categories of *abstract* intelligence, as follows

I. High professional and executive occupations Requiring very superior intelligence with training equivalent to that of a college gradu-

[1] DOUGLAS FRYER, "Occupational Intelligence Standards," *School and Society*, XVI (Sept 2, 1922), 273–277.

ate from a first-class institution. High standards, with ability for creative and directive work, such as lawyer, college president, president of a large manufacturing concern, etc

II Lower professional and large business occupations: Requiring superior intelligence with training *equivalent* to 2 or 3 years of college or to that of executive of moderately large business. Achievements less creative than in group I, but also demanding executive and leadership ability, such as executive of a moderately large business, veterinary doctor, high school teacher, etc.

III Technical, clerical, supervisory occupations Requiring high average intelligence with training *equivalent* to high school graduation Minor executives (foremen, department heads) or highly technical work often involving dealing with abstract classifications and details, such as railroad clerks, some retail dealers, photographers, telegraphers, shop foremen, stenographers, etc

IV Skilled tradesmen and low-grade clerical workers Requiring average intelligence with *equivalent* of some training beyond the eighth grade. Mechanical work demanding specialized skill and knowledge, tasks mostly of a complicated but concrete nature and requiring particular technical training, such as auto mechanic, stationary engineer, file clerk, typist, etc

V Semi-skilled occupations Requiring low average or slightly below average intelligence, with training *equivalent* to seventh or eighth grade Work demanding a minimum of technical knowledge or skill but a maximum of special abilities, such as dexterity in the performance of repetitive and routine work, such as packer in factories, operatives in factories (operate machines but do not understand principles and are unable to repair or set up the machine), lowest grades of clerical work also, such as number sorters, delivery men

VI. Unskilled occupations Requiring inferior intelligence only, with no formal training necessary Routine manual work under supervision and requiring no skill or technical knowledge, such as day laborers, railroad section hands [1]

It is interesting to note at this point that the Minnesota group who propose these categories of *abstract* intelligence set up also six categories each of mechanical ability, social intelligence, musical talent, and artistic ability. Attention will be given to these later when special aptitudes are considered.

[1] D G PATERSON, GWENDOLEN SCHNEIDLER, and J SPENCER CARLSON, *Minnesota Occupational Rating Scales*, Minneapolis. University of Minnesota, 1936

Yoakum[1] reports results of an extensive study of "mental alertness" among salesmen, conducted a number of years ago by the Bureau of Personnel Research of the Carnegie Institute of Technology. This study shows striking differences among groups of workers in different parts of the same general field—selling There were four groups of salesmen considered: *A*, counter salespeople in retail stores; *B*, wholesale salesmen to retail stores; *C*, insurance salesmen; and *D*, salesmen requiring training at a technical college. The average mental alertness score of group *A* was 51; of group *B*, 89, of group *C*, 112; and of group *D*, 139 The chart on page 185 shows the distributions of mental alertness scores for the four groups. While particular attention is attracted to these average scores, the range of scores within the various groups deserves attention, also. The group of insurance salesmen, for example, with an average score in mental alertness of 112, includes men with both lower and higher scores than are shown for any other group A more extensive study would be necessary in order to determine the significance of this wide range—a study which takes account of the proficiency of the worker in comparison with his mental alertness and also of the different levels of intelligence among the patrons of the insurance salesman Most insurance salesmen who are successful with unskilled factory workers are not of the type who succeed with professional workers

Significance of intelligence ratings for vocational counseling. While much more study of this problem is needed, enough evidence has accumulated during the past 20 years to make a convincing case for the value of intelligence scores or ratings in aiding young people to make the transfer from school to occupational life, assuming, of course, that these ratings have been obtained with proper care.

It is obvious that one individual may choose an occupation in which the great majority of workers have a higher degree of intelligence than he possesses, while it is quite as possible for another to choose an occupation in which the great majority of workers have a markedly lower intelligence rating than his Entry into the occupation in either case is likely to prove unfor-

[1] C. S Yoakum, "Basic Experiments for Scientific Selection," *Carnegie Institute of Technology, Service Bulletin of the Bureau of Personnel Research*, IV (January, 1922), 12.

tunate, though in the former case, especially if the occupation chosen lies in the professional field, the many educational hurdles to be encountered make actual entry improbable. Generally, however, it is far better to avoid the waste of time and energy and the bad psychological effects of repeated failures to leap the hurdles If such an individual actually succeeds in entering the occupation, he gives himself an enormous handicap in his efforts
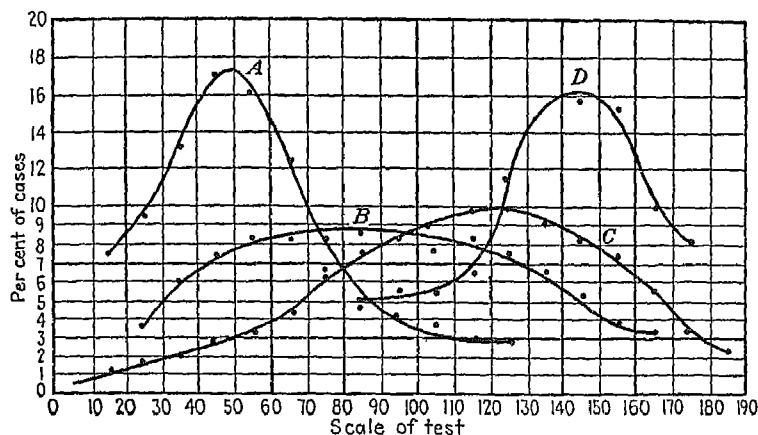
CHART 2 —"MENTAL ALERTNESS" AMONG SALESMEN

Types of Salespeople

A. Counter salespeople
B Wholesale salesmen to local retail stores
C. Insurance salesmen
D Salesmen requiring training at a technical college

[*From Yoakum, "Basic Experiments for Scientific Selection," Carnegie Institute of Technology, Service Bulletin of the Bureau of Personnel Research, IV* (*January*, 1922), 12]

for success in that he has placed himself in competition with a group of men and women whose intelligence is greater than his own.

On the other hand, the one who enters an occupation which is definitely below his level of intelligence will usually find that neither the work nor the associations bring him satisfaction. He either seeks another occupation or becomes a routine worker who finds satisfaction outside his work rather than in it Scott and Clothier[1] showed quite conclusively that, under certain

[1] W D SCOTT, R. C CLOTHIER, and S B MATHEWSON, *Personnel Management*, 2d ed , pp 463–466, New York, McGraw-Hill Book Company, Inc , 1931

circumstances, labor turnover depends very directly upon the relation of mental alertness of the worker to the work done In one company, for example, they found a good degree of stability among clerical workers whose mental alertness rating as measured by a certain test was between 35 and 50, while there was high turnover among those whose rating was decidedly below 35 or decidedly above 50 Those in the low group appeared to be unable to meet the requirements of the work In this particular case lack of a suitable promotional policy made it impossible to hold many of those whose intelligence ratings were comparatively high

The same authors report, concerning another establishment, that in the tool department where the work is high grade and varied, 83 per cent of the men who were retarded five years in school progress (amount of retardation being taken as a measure of mental alertness since results of intelligence tests were not available) desired change of work. On the other hand, in the inspection department, where the work is largely "foolproof," repetitive, and monotonous, the amount of dissatisfaction was very low among those who were very retarded in school, while 90 per cent of those whose progress in school was normal expressed a wish for some other kind of work

It would be highly desirable, to be sure, to have more complete evidence than is yet available as to the intelligence requirements of different occupations Indeed, Terman predicted many years ago that ultimately research will determine the minimum intelligence quotient necessary for success in each leading occupation This much desired goal is still far from realization, though there has been progress in that direction. However, there is already, as we have seen, sufficient evidence of this general character to make it necessary for the vocational counselor to ascertain the pupil's intelligence rating and take it into account when considering his fitness or unfitness for any specific occupation

Limitations on the use of intelligence ratings. While intelligence ratings are helpful in determining whether an individual has the ability to leap the educational hurdles that bar the way to entrance upon certain vocations, and while they serve also to help him avoid placing himself under an excessive handicap of competition with more capable people, the limitations of these ratings for vocational guidance purposes should not be over-

looked Intelligence ratings are useful in the selection of an occupational level rather than of a particular occupation

To be sure, if an individual is considering a particular occupation, his intelligence rating is of assistance in reaching a decision for or against it. But this is because of the general level of ability or preparation it requires rather than because of its peculiar characteristics. If he has no particular occupation in mind, the rating helps him to reduce the range of occupations among which to continue his search. By means of his intelligence rating he is assisted in deciding in favor of or against the professional field or the skilled trade field but not in deciding between law and medicine or between the machinist's and the plumber's trades. There are a great number of other occupations on each of these levels.

Again, it must be kept in mind that in any one group of occupations, and in any particular occupation within that group, the workers differ a great deal in their intelligence ratings, as is seen by examining the charts on pages 181 and 185. For example, the middle 50 per cent of the plumbers included in Chart 1 on page 181 vary from a low average rating of C— to a high average rating of C+ by the Army Alpha Test, with part of the plumbers rating lower than C— and part higher than C+. Still more striking is the wide range of intelligence ratings of salesmen, especially insurance salesmen, already referred to as shown in Chart 2, on page 185 From the evidence available there can be no doubt that, important as it is, intelligence is only one factor to be considered in the problem of vocational selection An individual may possess one or more of the other factors to such a degree as to compensate for a slight, or in some cases, a considerable shortage of intelligence as measured by the standard tests.

Summary

Six kinds of data concerning each pupil are needed for use in a school program of vocational guidance. general data, physical data, psychological data, social environment data, achievement data, and data concerning the individual's educational and vocational plans. However, only such data should be gathered as will actually be used

The general data are mainly for use in locating the pupil when needed. Included are name, address, telephone number, name

of parent, name of home-room teacher, and pupil's school program for the current semester. The physical data required cover such items as race, sex, age, health record, physical handicaps if any, height and weight in relation to physical maturity. These data must be brought up to date from time to time as the pupil advances through the secondary school period The needed psychological data include information concerning the individual's intelligence, his special aptitudes, and his personality traits. This chapter is concerned principally with data pertaining to intelligence

In this discussion the term "intelligence" is defined as "capacity of the individual to adjust himself to new situations, to solve new problems, to learn" It is accepted that an individual's intelligence is chiefly a matter of inheritance and that its modifiability is limited rather narrowly.

School attainment is a rough but far from satisfactory measure of intelligence In order to provide a more accurate measure, individual and group intelligence tests were developed, beginning with the Binet-Simon individual tests in France and the Stanford Revision of these in America. Results of intelligence tests often are expressed in terms of "intelligence quotient" (I Q.), a person being rated above normal (or average) in intelligence when his I Q is above 100. Notwithstanding much popular skepticism concerning the reliability of such tests, a well-chosen intelligence test properly given and carefully scored affords a better measure of intelligence as defined above than school records or anything else yet devised People generally are distributed with reference to intelligence, as measured by the tests, according to the normal curve of distribution.

Since it has been shown that intelligence is a very important success factor in high school, college, and university work, an individual's I Q is a significant item in predicting how far he is likely to be able to go with his education. And since entrance into many vocations depends upon high school graduation or college graduation followed by special preparation, the I Q is an item of significance for vocational choice. Ability to leap the educational hurdles which bar entrance into occupations must be taken into account in vocational counseling

It has been shown, also, that vocations differ decidedly in respect to the I.Q.'s of the great majority of those who work with

efficıency and satisfactıon ın them An ındıvıdual may be too intellıgent to find satısfaction ın the monotonous routıne of one type of occupation and not ıntellıgent enough to meet successfully the requırements of another Sınce occupations have been classified, even though somewhat roughly, with reference to the degree of ıntellıgence which they requıre, here agaın the I Q ıs an ımportant ıtem ın counselıng However, ıt ıs an aıd ın determınıng the *occupatıonal level* for whıch one is suıted ıather than ın selectıng a partıcular occupatıon. The problem of selectıng a partıcular occupatıon at that level stıll remains.

The I Q ıs an ımportant item of ınformatıon needed in vocatıonal counselıng but only one of several such ıtems

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CHAPTER XI

THE PERSONAL DATA COLLECTING SERVICE: SPECIAL APTITUDES AND INTERESTS

Special Aptitude Tests

The significance of aptitudes. One of the factors other than intelligence which claims attention in the list of psychological data needed for vocational guidance purposes is the special aptitudes possessed by an individual which make him better suited to one occupation or type of occupation than another. It is well known that two people of approximately the same general ability often differ a great deal in the ease with which they can learn music or the readiness with which they "take to" music It is often said that one has an aptitude for music while the other has not. Similarly it is often said of a person that he has an aptitude for art, or dramatics, or carpentry, or engineering, or sales work, or some other occupation It is clear that there is something which, if discoverable and measurable in advance of vocational choice and preparation, should prove of great value in vocational counseling If it is possible to obtain them, data concerning an individual's aptitudes should make it possible to narrow more closely the range of occupational choice within that group or level of occupations indicated by his intelligence rating as desirable for him

The nature of special aptitudes. As defined by Warren in his *Dictionary of Psychology*, aptitude is "a condition or set of characteristics regarded as symptomatic of an individual's ability to acquire with training some (usually specified) knowledge, skill, or set of responses such as the ability to speak a language, to produce music, etc " Bingham, after quoting Warren, adds·

> In referring to a person's aptitude for mathematics or art, or carpentry, or law, we are looking to the future His aptitude is, however, a present condition, a pattern of traits, deemed to be indicative of his potentialities [1]

[1] W V Bingham, *Aptitudes and Aptitude Testing*, pp 16–17, New York. Harper & Brothers, 1937

Bingham then proceeds to make it clear that he is not thinking of aptitude as limited to native endowments only.

We want the facts about a person's aptitudes *as they are at present*: characteristics now indicative of his future potentialities Whether he was born that way, or acquired certain enduring dispositions in his earliest infancy, or matured under circumstances which have radically altered his original capacities is, to be sure, a question not only of great theoretical interest but of profound importance to society at large, for the answer has a bearing on public policy in regard to universal education, the functions of the school, and eugenic legislation But it is of little practical moment to the individual himself at a time when he has already reached the stage of educational and occupational planning His potentialities at that period of his development are quite certainly the products of interaction between conditions both innate and environmental. His capacity for gaining manual skills, his intelligence, his emotional make-up, his moral character, indeed all the aspects of his personality, are in varying degrees subject to limitations that have been imposed by opportunities for growth and exercise, as well as by his original nature No matter what his constitution may at first have been, it has unfolded, taken shape, been encouraged here and thwarted there, during the impact of favorable or unfavorable stimulation from the environments in which he has developed And so, when appraising his aptitude, whether for leadership, for selling, for research, or for artistic design, we must take him as he is—not as he might have been [1]

Bingham insists further that one's readiness to acquire proficiency in an occupation is not the sole measure of his aptitude for it Readiness to develop an interest in exercising his potential ability along this line is involved, also, and "'ability to acquire' a genuine absorption in the work, as well as a satisfactory level of competence."[2] Here certain personality traits seem to come into the picture as Bingham sees it, for it is not uncommon for an individual to manifest musical ability, for example, who lacks the personal qualities essential to its development

It appears, too, that Bingham's conception of aptitude is broad enough to include intelligence, for he says in discussing preparation for the professions: "Minimum levels of intelligence as measured by the more reliable examinations are without ques-

[1] *Ibid*, pp. 16–17
[2] *Ibid*, p 18

tion factors in aptitude for successful mastery of what these [professional] schools teach."[1]

For the purposes of this book Bingham's conception of aptitudes is too broad. The whole question of psychological suitability for an occupation seems to be implied when he speaks of aptitude for it. It has seemed better to the writer to break up this question of suitability into intelligence, special aptitudes, and personality traits, and then to consider each of these separately in relation to vocational choice. However, this is done with full recognition of the impossibility of separating the three in any given situation. All must be considered together in actual counseling, for instance. Their separation in discussion seems more likely to result in clear understanding and to assure proper consideration of all three in dealing with the subject of needed psychological data. This should become more evident in the chapter on Counseling.

If Warren's definition as discussed by Bingham is accepted, with the single reservation just noted, it will be seen that a special aptitude has substantially the same relationship to a particular line of activity that intelligence has to life as a whole. We are concerned with "capacity of the individual to adjust himself to new situations, to solve new problems, to learn" in both cases. The area covered by this concern is what differs.

It should be noted, also, that what matters in case of special aptitudes, just as in case of intelligence, is *present* capacity rather than native capacity. To be sure, the former capacity includes the latter and the effects of environment upon it. Also, the former is determined to a large extent by the latter. But, since no method has yet been found of separating the latter from the former, only the former is available for study and measurement, however desirable it might be to have this otherwise. Of course, native special capacity can be inferred from present special capacity, especially if proper attention is given to environmental influences that may have contributed to the development of the special capacity concerned.

Tests of special aptitudes. A few illustrations relating to widely different types of occupations will help to make clear the nature of special aptitude tests.

[1] *Ibid.*, p. 57.

Tests for shell inspectors. Link gave a series of tests to 73 girls employed in a munitions plant. Fifty-two of the girls were inspectors and 21 were gaugers He then found the correlations between the scores made by the girls who were inspectors and the average number of pounds of shells inspected per hour over a period of four weeks Also he found similar correlations for the gaugers. The following results were obtained.

Correlations between Test Scores and Proficiency in the Work of Inspector and Gauger*

Tests	Correlations	
	Inspectors	Gaugers
Card sorting	55	05
Tapping	14	52
Cancellation	63	17
General intelligence	14	.18
Number-group checking	72	− 19

* H C Link, *Employment Psychology*, p 33, New York The Macmillan Company, 1919

From this experiment Link concluded that high scores made by an individual in the card-sorting, cancellation, and number-group checking tests indicated probable success as an inspector, while only the tapping test had any significance in the selection of gaugers

In summarizing all his experiments in this field, which involved giving the tests that he found significant to more than 2,900 applicants for the work of inspection and to a considerable number already engaged in this work, Link says:

> It was found (1) that the verdict of the foreman tended to bear out that of the tests, (2) that of a certain group studied intensively, 94 per cent of the successful workers were above the standard in the tests, and all failures were failures also in the tests, (3) that those who passed the tests worked (that is, were continuously employed as inspectors) almost ten times as long as those who did not.[1]

It should be noted that shell inspection is highly specialized, repetitive work, which requires ability to observe defects quickly,

[1] Link, *op cit*, p 52.

and to throw out deftly the defective shells. One who is suited to the work can become quite proficient in a few days.

Tests of musical talent. Tests to determine a very different kind of aptitude, or the lack of it, were developed by Seashore,[1] and recently revised by him and associates. As long ago as 1916 this well-known psychologist, after many years of experiment and study, established a clinic at the University of Iowa for testing musical capacity Describing this undertaking, he says:

> It is now possible to make reliable and fairly complete measurements of the fundamental capacities which constitute musical talent early enough to serve as a guide in the selection of a musical career. The measurement of musical talent is not one measurement but a large number of measurements which must be built up into a system so as to represent fairly the most salient features of musical talent. It is necessary, for example, to know the sensitiveness of the ear to tones, the musical imagination, the musical memory, the musical intellect, the musical feeling, the time-sense, the sense of rhythm, and the sense of harmony and melody, which are capacities involved in the hearing and appreciation of music Likewise it is necessary to know the corresponding facts about the ability to express music in singing and playing Different instruments require different kinds of talent. .
>
> In brief, the examiner should be able to state on the basis of scientifically observed facts, what kind of musical training and achievement, if any, the pupil is adapted for and what is the probable extent of achievement and rate of progress [2]

In a book[3] published some years later, Seashore presents the following list of factors of the musical mind:

- I Musical sensitivity
  - A. Simple forms of impression
    1. Sense of pitch.
    2. Sense of intensity
    3. Sense of time
    4. Sense of extensity.
  - B Complex forms of appreciation
    1 Sense of rhythm

[1] JOSEPH G SAETVEIT, DON LEWIS, and CARL E SEASHORE, *The Revision of the Seashore Measures of Musical Talents*, Series on Aims and Progress of Research, No 65, Iowa City. University of Iowa Press, 1939

[2] CARL E SEASHORE, *Vocational Guidance in Music*, University of Iowa Monographs, First Series, No 2, Iowa City University of Iowa Press, 1916.

[3] CARL E SEASHORE, *The Psychology of Musical Talent*, New York Silver, Burdett & Company, 1920

2. Sense of timbre.
3. Sense of consonance
4 Sense of volume.

II. Musical action.

Natural capacity for skill in accurate and musically expressive production of tones (vocal, instrumental, or both) in·

1 Control of pitch
2 Control of intensity
3. Control of time
4 Control of rhythm
5. Control of timbre.
6. Control of volume

III. Musical memory.

1. Auditory imagery
2. Motor imagery.
3. Creative imagination.
4. Memory span
5 Learning power.

IV. Musical intellect.

1. Musical free association.
2 Musical power of reflection.
3 General intelligence.

V. Musical feeling.

1. Musical taste.
2. Emotional reaction to music.
3. Emotional self-expression in music.

Considering for the moment a single factor in this list, Seashore found that one individual may be 200 times as keen as another in pitch discrimination He concludes that, other things being equal, the best 10 per cent in pitch should be stimulated enthusiastically to develop their musical talent, the next 20 per cent should be encouraged freely, the next 40 per cent should be encouraged; the next 20 per cent should be questioned; and the last 10 per cent should be discouraged Of course, Seashore is thinking here not only in terms of a musical career but also in terms of musical appreciation and amateur performance

Seashore cites the case of one girl who had had considerable musical training and achieved local success as a singer who made a high score in his tests, taken as a whole This girl was greatly encouraged and stimulated in her efforts toward a musical career by the showing she made in the tests. Another girl of poor family who had had no training made an exceptionally high score in the tests, and was given training opportunities as a

result. A young man upon whose musical "education" considerable money and effort had been expended with insignificant results was found to be hopelessly deficient in several of the most important factors covered by the tests The accompanying
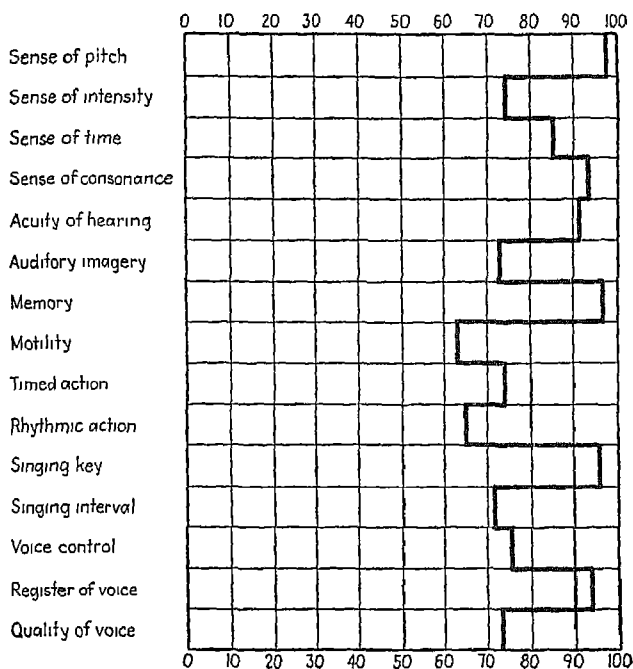
CHART 3 —MUSICAL TALENT OF "MR WHITE"

(*From Carl E Seashore, The Psychology of Musical Talent, p.* 23, *New York Silver, Burdett & Company*, 1920)

charts show the scores made by two men whom Seashore calls "Mr White" and "Mr Black."

Of Mr. White, Seashore says:

In general Mr White has an unusually strong and well-balanced musical mind, ranking in this respect among the best three per cent in a normal community He has always manifested great interest and activity in music, but has had only a small amount of formal training He lives in a tonal world and is emotionally responsive to music.[1]

Concerning Mr Black the following comment is made:

So far as musical resources are concerned, his record is remarkable for its uniform inferiority He has taken music lessons but has met

[1] *Ibid.*, p 23

with failure. He shows only a perfunctory interest in music. This record removes all necessity for uncertainty and pretense.[1]

Tests of mechanical aptitude. Much attention has been given to tests of mechanical aptitude which, of course, are designed to measure aptitude for a fairly large field of occupations rather
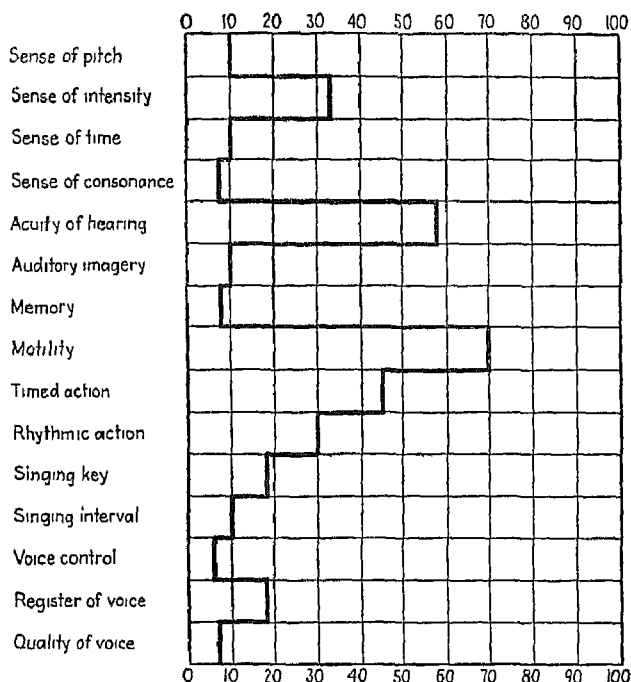
CHART 4—MUSICAL TALENT OF "MR BLACK"

(*From Carl E Seashore, The Psychology of Musical Talent*, p 25, *New York: Silver, Burdett & Company*, 1920)

than for a single occupation One of the earliest of these, developed by Stenquist, involved assembling of parts into mechanical devices, beginning with a simple one and advancing as far as the fixed time would permit through a series of devices each more complicated than its predecessor Stenquist later brought out his more widely used paper-and-pencil tests. Essential features of these tests are identification of pictures of tools and parts of mechanical contrivances and answering questions about pictures and diagrams of machines and machine

[1] *Ibid*, p 25

parts. Stenquist reports a median coefficient of correlation of 67 between scores made on his tests and shop teachers' ratings of "general mechanical aptitude "[1]

O'Rourke's Mechanical Aptitude Tests, also of the paper-and-pencil type, were used by the Tennessee Valley Authority in selecting laborers who were to be given opportunity to learn various skilled trades. In other experiments with these tests it was found that nearly all candidates for engineering training scored B or better while mature T.V A workers averaged about D+. These tests, like those of Stenquist, are based on the assumption that one who possesses mechanical aptitude picks up more information concerning machines and mechanical things than does one who lacks this aptitude Hence a measure of one's mechanical information is also a measure of his mechanical aptitude

The Minnesota Mechanical Assembly Test[2] constitutes the most ambitious effort to measure mechanical aptitude. The subject is asked to assemble the disassembled parts of each of nine mechanical objects (box *A*) with a time allowance on each object If an object is not assembled when the time allowance is up he passes to the next object The total time limit for the nine objects is 18 minutes. Next he is asked to assemble the parts of each of eight objects in another group (box *B*) with a total time limit of 21 minutes 5 seconds Then he is asked to assemble 16 objects of another group (box *C*), with a total time limit of 16 minutes A push-button doorbell and a bicycle bell are among the objects in box *A*; a monkey wrench and an inside caliper, among those of box *B*; and pliers and a metal pencil, among those of box *C*.

The vocational significance of a score made on this test is suggested by the average standard scores of three groups of workers as follows· machinists, 5 85, industrial arts teachers, 5 49; machine operators (lathe, drill press, etc.), 4 98 Among a sample of men from the general working population, 80 per cent did not exceed the average score made by industrial arts teachers

[1] J L. Stenquist, *Measurements of Mechanical Ability*, Teachers College Contributions to Education, No. 130, New York Teachers College, Columbia University, 1923

[2] D. G. Paterson and others, *Minnesota Mechanical Ability Tests*, Minneapolis. University of Minnesota Press, 1930

and 49 per cent did not exceed the average score of machine operators. Also, it was found that 70 per cent of garage mechanics made a better score on this test than the average office clerk. On the other hand, only 11 per cent of the garage mechanics rated as high in verbal intelligence as the average office clerk. No doubt, differences in education and experience as well as differences in native capacity influence results in case of both of these tests when taken by adults.

Commenting on the vocational significance of these tests, Bingham says:

> A person's verbal intelligence seems to have little relation to his performance in mechanical assembly tests. Brightness in abstract school subjects does not imply mechanical aptitudes, neither does dullness. In the distribution of human endowments, the so-called law of compensation has not been found to hold. To make trade schools the dumping-ground for students whose only qualification for entrance is their inability to learn from books is nothing short of scandalous. The youths' mechanical aptitudes should first be ascertained, by reference to their achievements in pre-vocational tryout courses and their test records. Assembly tests have proved useful in such situations, as parts of a battery for ascertaining unsuspected mechanical talents and for estimating the probabilities of mastering vocational courses in which some aptness for handling mechanical contrivances is needed.
>
> A person's score may be thought of as determined in part by his endowment of mechanical ingenuity, in part by his familiarity with mechanical devices more or less similar to these in principle. His score, then, cannot be taken as a pure measure of his mechanical intelligence, but must be appraised in the light of what is known about his previous background and opportunity for knowing about and manipulating a large variety of mechanisms. This precaution is particularly to be observed when interpreting the significance of an adult's score.[1]

Bingham also points out that it is necessary to consider the size of the standard error of measurement and that this varies more in case of adults than in case of boys. He concludes that unless a person's performance in an assembly test of this sort is much below average and is also accompanied by other indications of lack of mechanical ability or interest, it need not discourage him from entering a mechanical occupation.

[1] BINGHAM, *op. cit.*, p. 308.

Another test of mechanical aptitude is Johnson O'Connor's Wiggly Blocks,[1] used by him to measure ability to visualize three-dimensional structure. He claims a high degree of success by means of this test in selecting youth who should prepare for such occupations as those of engineer, architect, draftsman, and high-grade machinist O'Connor also uses a finger-dexterity test and a tweezer-dexterity test to discover aptitude for certain types of small assembly work

Other tests in this field include the McQuarrie Test for Mechanical Ability and the Detroit Mechanical Aptitudes Examination, with separate forms for boys and girls

Tests of clerical aptitude In the field of clerical work numerous efforts have been made to devise aptitude tests, both for the field as a whole and for parts of it A rather comprehensive effort to measure aptitude for typing was made by Muscio and Sowton[2] in London more than 15 years ago They gave a series of tests to 220 subjects in several groups, all of whom possessed more or less experience in typewriting Correlations were then found between the rank of the subjects in the tests and their rank in proficiency in the groups to which they belonged These investigators concluded that the following tests which they used showed sufficiently high correlations to be of some significance in discovering aptitude for typewriting:

1. A test of immediate memory span. (Reproducing sentences immediately after they are read)
2. A test in carrying out directions.
3. A finding test (Finding products of pairs of two-place numbers from a table)
4 A completion test, in which appropriate words must be supplied to fill in blank spaces in a sentence.
5 A test of spelling

They considered it probable, also, that a test of speed of association would be valuable

Minnesota Test for Clerical Workers A test of more general aptitude in this field is the Minnesota Vocational Test for

[1] JOHNSON O'CONNOR, *Psychometrics*, Cambridge Harvard University Press, 1934.

[2] B MUSCIO and S C M SOWTON, "Vocational Tests and Typewriting," *The British Journal of Psychology*, XIII (April, 1923), 343–369

Clerical Workers.[1] The subject checks pairs of numbers and pairs of names, the members of each pair being exactly alike in some cases and differing very slightly in other cases. Only those pairs that are *exactly alike* are to be checked A time limit of 15 minutes and 28 minutes is fixed for the shorter and longer forms respectively of this test, slightly more time being allowed for the number checking than for the name checking Accuracy and speed are thus the two qualities that are measured

Accountants and bookkeepers make better scores on this test than any other group of clerical workers. On the average their scores are better than 95 per cent of subjects selected at random from the general working population The average scores of accountants are somewhat better than those of stenographers, and the latter considerably better than those of office-machine operators It is interesting to note that while the two latter groups averaged approximately the same on number checking, stenographers averaged decidedly better than office-machine operators on word checking The authors report an important relationship between scores made on the test by school pupils and their later success in a commercial high school

Johnson O'Connor applies the name "accounting aptitude" to the qualities measured by a test devised by himself which is similar to the Minnesota Vocational Test for Clerical Workers. He points out, however, that business executives, also, and others in office positions average well in this test.

Tests of aptitude for other occupational fields Little more than mention can be made here of other aptitude tests.

The McAdory Art Test[2] includes 72 plates, each of which pictures a single subject in four different ways, *A*, *B*, *C*, and *D*. An individual's score on the test is determined by the closeness of his judgment on the relative artistic merits of *A*, *B*, *C*, and *D* to the predetermined combined judgment of a group of carefully selected art experts

[1] DOROTHY M ANDREW and DONALD G PATERSON, *Measured Characteristics of Clerical Workers*, University of Minnesota Employment Stabilization Research Institute Studies, Vol III, No 1, Minneapolis University of Minnesota Press, 1934

[2] MARGARET MCADORY, *The Construction and Validation of an Art Test*, Teachers College Contributions to Education, No 383, New York Teachers College, Columbia University, 1929

The Art Judgment Test,[1] devised by Meier and Seashore, consists of 125 pairs of pictures, one of each pair being a reproduction of the work of a famous artist and the other of the pair being an inferior copy of the same picture The person taking the test is asked to select from each pair the one that is the "more pleasing, more artistic, more satisfying."

Varnum's Selective Art Aptitude Test[2] is divided into seven parts, grouped according to related aptitudes, which in turn are related to groups of art professions or industries requiring ability contained in that specified group Group *A* consists of three purely objective tests designed to fit the requirements of certain industrial and art processes

Test 1	Acuity of vision (form observation)—4 parts
Test 2	Color memory—2 parts
Test 3	Tone gradations—2 parts

Groups *B* and *C* are concerned with "measuring the feeling-tone, the subjective, and emotional side of the field of art "[3] Ability shown in group *B* "opens up additional opportunities and broader goals than would be the case of proficiency in group *A*," while group *C* "measures those elements of creative activity of outstanding value to industrial and other divisions of art."[4] Each of these groups contains two tests

Group *B*	Test 4	Proportioning—1 part
	Test 5	Balance and rhythm—4 parts
Group *C*	Test 6	Speed (motor reactions under creative stimulus)—2 parts
	Test 7	Creative imagination—2 parts

The Stanford Scientific Aptitude Test and the Coxe-Orleans Prognosis Test of Teaching Ability, which Bingham lists among intelligence tests, deserve careful examination by those who are interested in measuring aptitudes for these professional fields.

[1] N C MEIER, *Aesthetic Judgment as a Measure of Art Talent,* University of Iowa Studies, 1st series, No 114, Iowa City University of Iowa, 1926

[2] WILLIAM H. VARNUM, *Selective Art Aptitude Test,* Scranton, Pa International Textbook Company, 1940

[3] WILLIAM H VARNUM, *Validation, Reliability, and Rating Manual for a Selective Art Aptitude Test,* p. 2, Scranton, Pa · International Textbook Company, 1940.

[4] *Ibid.*, p 3

Tests of this type of varying merit have been devised for aviators, dressmakers, hairdressers, journalists, policemen, printers, railway workers, salesmen, streetcar motormen, telegraph operators, telephone operators, and for workers in other occupations

Methods used in devising aptitude tests. A method of devising aptitude tests which has met with some success is the empiric method. The investigator takes a group of tests of any sort that he thinks might be useful, gives them to a considerable number of workers of known ability in the occupation under investigation and then determines which tests show a high correlation with occupational proficiency. Tests showing a high correlation are considered suitable for selection of new workers. Link used this method in selecting shell inspectors

The method of devising special aptitude tests which seems likely to make the largest contribution to vocational guidance is that which involves a careful analysis of the occupation into its elements. It is then determined what psychological qualities are important in connection with each element, and individuals are tested for these qualities. This is substantially the plan followed by Seashore It is, of course, necessary to determine the validity of the test by giving it to a considerable number of people who are already engaged in the occupation and whose efficiency has been reliably rated. Only in case there is a high correlation, with small probable error, between performance in the test and performance in the occupation can one conclude that the test is valid.

An interesting illustration of this method is found in the tests for dressmakers' apprentices used by Miss Spielman[1] in London As a result of careful analysis she came to the conclusion that the psychological factors determining efficiency in dressmaking are: (1) speed of work—maximum speed, customary speed, ratio of maximum speed to customary speed, and resistance to distraction; (2) quality of work—accuracy, perception of equal distances, memory of length, form, and color, coordination of hand and eye and hand and image, and lightness of touch; and (3) independence of forewomen's supervision—memory for complicated instructions, and observation. The tests for maximum speed included drawing circles at maximum speed, threading beads at maximum

[1] WINIFRED SPIELMAN, "Vocational Tests for Dressmakers' Apprentices," *The Journal of the National Institute of Industrial Psychology*, I (July, 1923)

speed, pricking with a mounted needle at maximum speed, and knotting wool at maximum speed. It will be observed that the processes involved in dressmaking were avoided in these tests The same was true of the tests used for customary speed, for perception of equal distances, for memory of length, form, and color, and for the other qualities listed above. A correlation of .78 was found between the results of the tests and the ranking made by the trademistress of the girls who took the tests.

Looking at the matter from another angle, it obviously would be a great advantage if, on the one hand, each pupil could be tested for and rated in the entire range of important psychological qualities and, on the other hand, each occupation could be analyzed into its elements and the psychological quality most important for each element determined This would make available at any time a psychograph of each individual pupil for comparison with, if the term may be permitted, the psychograph of any particular occupation in which he may become interested. However, the Swiss psychologist, Claparède, holds that

> Psychological analysis of the subject and determination of his separate mental functions may or may not give an accurate estimate of his aptitude for an occupation The accuracy of the estimate is a new question which can only be settled by experience. The great majority of occupational operations require the coordination of these elementary functions The possession of these abilities and the power to coordinate them are two different things [1]

Present status of aptitude tests in guidance work. Much to be desired as suitable tests of special aptitudes are, it must be admitted that we are still far from the time when the vocational bureau of a city school system can make extensive use of tests of this type for guidance purposes The number of occupations for which such tests have been developed is extremely small in comparison with the number of occupations listed by the United States Census Few of the tests that have been developed have, as yet, proved their value. Preparing and validating tests of this character is an undertaking of such magnitude that further progress along this line must of necessity be slow And even after a large body of suitable tests is developed there remains the

[1] EDOUARD CLAPARÈDE, *Problems and Methods of Vocational Guidance*, p 51, Geneva International Labour Office, 1922

task of providing sufficient laboratory facilities and psychological staff to give the tests to large numbers of pupils.

It must be recognized that, up to the present time, tests of special aptitudes have proved more useful in selecting workers for particular jobs than in aiding individuals to choose their occupations

Nevertheless, directors of vocational guidance and their assistants should keep themselves informed as to developments in this field, encourage and participate in experimental work, and be ready to introduce such tests of special aptitudes, as, from time to time, may prove their worth and be found practicable to administer in a school system

Vocational Interest Inventories

Closely related to aptitude testing are the efforts that have been made to determine the interests of individuals which are significant for vocational choice. True, psychologists tell us that one may have an aptitude for a particular occupation without showing interest in it (possibly because he knows little about it) and that, on the other hand, one may be interested in an occupation for which he shows no particular aptitude But the problem here is not that of measuring an individual's expressed interest in a particular occupation. It is rather that of discovering the degree to which he possesses the general *pattern of interests that characterize successful workers* in a specific occupation Strong and others who have been stressing vocational interest inventories base their work upon the fact that "Men engaged in a particular occupation have been found to have a characteristic pattern of likes and dislikes, which distinguish them from men following other professions" The conclusion follows logically that one who possesses to a high degree the interests that characterize physicians as a group and possesses to a low degree the interests that characterize engineers as a group should give weight to this fact in making his vocational plans

The Strong Vocational Interest Blank.[1] The most important contribution in this field thus far is that of Strong of Stanford University. He has developed five forms of his well-known Vocational Interest Blank, one for males and one for females out

[1] E K Strong, Jr., *Manual for Vocational Interest Blank for Men*, p. 1, Stanford University, Calif.: Stanford University Press, 1938.

of school; one for male and one for female students, and one for men whether attending school or not, to be used with recently revised scales. Norms for the interest patterns of workers in 35 occupations, mostly on the professional level, were determined by having thousands of successful adults engaged in these occupations check the last blank mentioned, which contains 400 separate items. In checking the blank one indicates that he likes, dislikes, or is indifferent to each of 100 occupations, 49 recreations and amusements, 36 school subjects, 48 "activities," and 47 peculiarities of people. In addition he expresses himself concerning preferred activities, important factors affecting his work, the men he admires most, the position he would prefer to hold in a club or society, and rates himself on his present abilities and characteristics.

The rating of an individual who fills out the blank is determined by comparing his checked blank with the norms for each of the occupations for which norms have been established. It is thus possible to say that a student's interest pattern scores A or C in respect to architecture, engineering, farming, medicine, teaching, etc. However, it is usually desirable to consider his score with reference to all the occupations on Strong's list, in order to obtain a more complete picture of his interest pattern. The value of the blank decreases rapidly for ages below seventeen years and appears to have little value below fifteen years.

The question of the stability of one's interests naturally arises. May not an individual check the blank differently five years, one year, or even a few months after he checks it the first time? Strong recognizes that this is true but points out that his researches show a striking similarity between the different checkings by the same individual as far as the really significant items are concerned. Most of the differences are found among the reactions of the individual to items which were relatively unimportant in determining his interest pattern the first time he checked the blank. Strong's studies[1] show a correlation between test and retest scores of .75 for 223 men representing 21 occupations who checked the blanks a second time after an interval of five years.

[1] E. K. STRONG, JR., *Change of Interests with Age*, Stanford University, Calif.: Stanford University Press, 1931.

Hepner's Vocational Interest Quotient.[1] By means of separate check lists for four large fields of work, Hepner undertakes to determine what he calls the vocational interest quotient The four fields are the professions (24), business occupations (24), skilled trades (20), occupations for women (24). An individual may take the test for one or more fields as he prefers Hepner's list of items for checking on each of the four lists numbers 167 and, as in case of Strong's blank, the person taking the test is asked to indicate whether he likes, dislikes, or is indifferent to each item.

Commenting on Hepner's "Herculean task," Bingham says

> Because of the inclusion of many general non-diagnostic items among the 167 on the blank, and the small numbers in the occupational groups used in preparing the scales, the resulting V I Q 's do not differentiate well between occupational groups, and their use in guidance cannot be recommended.[2]

Cleeton's Vocational Interest Inventory.[3] This inventory has separate forms for men and women Its author considers it suitable for high school pupils from the ninth grade up, for college students, and for youth who have left school

While this inventory follows the same general principles as those of the blanks already described, it does not provide for recording reactions of indifference to listed items, and its arrangement is different. The form for men includes a total of 630 items to be checked and 40 questions to be answered yes or no. The same is true of the form for women The items to be checked are in nine groups. A high score on any group is supposed to indicate possession of interests which are characteristic of workers in a particular field of occupations, though this is not known by one taking the test The fields of occupations for men provided for are those of the physician and biological scientist, the life insurance salesman and salesman in other special fields; the engineer, technologist, chemist, mathematician, and other workers in physical sciences; the teacher, minister, social worker,

[1] HARRY WALTER HEPNER, *Vocational Interest Quotient Booklets*, New York. Psychological Corporation, 1931

[2] BINGHAM, *op. cit*, p. 75

[3] GLEN U. CLEETON, *Vocational Interest Inventory*, Bloomington, Ill. McKnight and McKnight, 1937.

and other workers in social sciences; the purchasing agent, business manager, clerk, and other workers in the field of business administration, the lawyer, journalist, and other workers in the legal and literary field, the skilled worker in mechanical occupations; the accountant, statistician, banker, broker, and workers in other financial occupations; the actor, musician, artist, and workers in other creative or public performance occupations

If one could be sure that a high score on each of these nine groups of items actually indicates what it is supposed to indicate, Cleeton's inventory would be of distinct value However, he has not yet furnished sufficient evidence on this point to be entirely convincing

Stewart and Brainard's Specific Interest Inventories.[1] Four forms of these inventories are available—one each for men, boys, women, and girls The forms for boys and girls are intended for ages ten to sixteen years. Each form contains 20 groups of five questions each A question may be answered or checked in any one of five ways, thus providing for five levels or degrees of reaction to the question, from like to dislike. The 20 groups deal with 20 different types of interests as follows artistic, commercial, creative imagination, emotional expression, esthetic, experimental, leadership, literary, manual, mathematical, mechanical, musical, observation, order, outdoor, physical, scientific, social study, and vocal expression Each question group covers a "different phase of a special mode of expression For example, under mechanical there is: (1) construction, (2) installation, (3) repair, (4) designing, and (5) operation."

The authors report that:

A class of engineers were followed to graduation after taking an interest test in the freshman year Of 22 men whose interest ranks and intelligence ranks were below median, only one remained to graduate. Of 49 men whose intelligence ranks were below median but whose interest ranks were above median, 15 remained to graduate 43 engineers dropped out whose interest scores were above median, and 62 dropped out whose scores were below median. Only six men having interest

[1] Frances J Stewart and Paul P Brainard, *Specific Interest Inventories*, New York. Psychological Corporation, 1932

scores in engineering in the lowest quartile, remained to the senior year, out of the 300 tested.[1]

They report also a fairly high degree of stability of interests as measured by the test in case of 60 ninth-grade school children who were tested in November and again in May of the same school year

Other vocational interest inventories. Among other inventories of this type are Manson's Occupational Interest Blank for Women, the Oberlin Vocational Interest Inquiry, and Garretson and Symonds's Interest Questionnaire for High School Students The last named of these is for the purpose of aiding eighth- and ninth-grade boys to decide whether to enter the academic, commercial, or technical curriculum in senior high school

Present status of vocational interest inventories in vocational guidance. The present situation with respect to use of inventories of this type in a vocational guidance program is similar to that with respect to aptitude tests Both have fascinating possibilities. Important pioneer work has been done in both fields. Both are now used to a limited extent for vocational guidance purposes But much experimenting, much improvement in techniques, and much checking of results are necessary before either will find a large place in the guidance work of public school systems.

Nevertheless, as was said concerning aptitude tests, vocational guidance workers will find it decidedly worth while to keep informed concerning developments along the line of vocational interest inventories, and to be ready to cooperate with psychologists in the improvement of this still crude and cumbersome but promising measuring instrument.

A development that looks especially promising at this time is Thurstone's effort to apply his factorial analysis procedure to vocational interests [2] Thus far he has identified eight vocational interest factors as follows. commercial, legal, athletic, academic, "descriptive," biological, physical science, and art. Each factor

[1] FRANCES J STEWART and PAUL P. BRAINARD, *Manual of Instructions for Specific Interest Inventories*, p 3, New York. Psychological Corporation, 1932.

[2] L. I THURSTONE, "Factorial Analysis of Vocational Interests," paper presented at a meeting of the American Psychological Association, Ann Arbor, Mich , September, 1935.

has significance for a considerable group of occupations An interest profile resulting from adequate tests of these factors should prove helpful in counseling

SUMMARY

While one's intelligence is an important factor in determining what *occupational level* is suitable for him, his special aptitudes and interests are significant factors in connection with his choice of an *occupational group* and often of a specific occupation at that level

Aptitude has been defined as "a condition or set of characteristics regarded as symptomatic of an individual's ability to acquire with training some (usually specified) knowledge, skill, or set of responses such as the ability to speak a language, to produce music, etc "

A special aptitude has substantially the same relationship to a particular activity or group of activities—such as art, music, salesmanship, mechanical occupations, etc —that intelligence has to life as a whole In both cases "capacity of the individual to adjust himself to new situations, to solve new problems, to learn" is what is meant The difference between the two lies in the area of life's activities covered As in case of intelligence, it is necessary to deal with present capacity rather than with native capacity, though the latter can be inferred from the former when an individual's training and experience along the line of the special activity are taken into account

A large number of tests of special aptitudes have been devised. Some of these cover broad fields (mechanical and clerical, for example) and some cover single occupations (those of shell inspector, dressmaker, airplane pilot, and others) Good illustrations are the Seashore Tests of Musical Talent, the Minnesota Mechanical Assembly Test, the Minnesota Test for Clerical Workers, the McAdory Art Test, the Stanford Scientific Aptitude Test, and the Coxe-Orleans Prognosis Test of Teaching Ability, though the last two of these have been criticized on the ground that they are tests of intelligence rather than of aptitudes Thus far tests of special aptitudes have proved more useful in selecting workers for particular jobs than in aiding individuals to choose suitable occupations or even occupational fields However, their use for the latter purpose is growing More well-

validated and reliable tests of this type and better machinery for administering them are necessary before they will play a large part in high school vocational guidance programs

Related to aptitude tests are interest inventories, whose purpose is to compare the interests of an individual with the patterns of interests which characterize successful workers in different occupations. This procedure is based on the fact that "men engaged in a particular occupation have been found to have a characteristic pattern of likes and dislikes, which distinguish them from men following other professions." If the interest pattern of the individual who fills out the inventory form is similar to that of lawyers and quite unlike that of doctors, the conclusion is that he is better suited for law than for medicine

Among the several vocational interest inventory forms thus far developed the Strong Vocational Interest Blank is probably the most widely used at this time. The value of this blank decreases rapidly for ages below seventeen and has little value below fifteen years.

Like aptitude tests, vocational interest inventories have fascinating possibilities. Both are used to some extent in vocational guidance programs. But much experimenting, much improvement in techniques, and much checking of results are necessary before either will find a large place in the guidance work of public school systems. However, vocational guidance workers will find it desirable to keep informed concerning developments along both of these lines and to cooperate with psychologists in the improvement of these still crude and cumbersome but promising measuring instruments

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CHAPTER XII

THE PERSONAL DATA COLLECTING SERVICE: PERSONALITY CHARACTERISTICS, SOCIAL ENVIRONMENT, ACHIEVEMENTS, PLANS

Other factors involved in vocational success. Everyone recognizes that vocational success depends upon other factors as well as upon general intelligence and special aptitudes Proctor found that among 131 high school pupils whom he studied, the very dullest with an I Q of 79 had an average scholastic record of C+, which was exactly the same as that of the second brightest of the group whose I Q was 137.[1] Cattell, speaking some years ago of intelligence tests, said. "When applied to school children these tests indicate what the children *can* do better than what they *will* do."[2] In a general way Cattell's statement will apply to aptitude tests also, as these develop, though probably in a lesser degree since one is more likely to be interested in doing the things for which he possesses a special aptitude. But interest is only one of several additional factors that must be taken into account. Drive, emotional stability, initiative, ambition, personal disposition, and a whole group of character traits including industry, honesty, conscientiousness, dependability, courtesy, cooperativeness, and loyalty must always be recognized as of great importance Introversion-extroversion, dominance-submission, and self-sufficiency are other characteristics that claim attention.

It will be observed that some of these qualities are, to a large extent at least, hereditary while others are more the result of training and experience than of hereditary influences But, however derived, they have significance for vocational planning since occupations differ in the extent to which they require this or that quality on the part of those who engage in them.

[1] WILLIAM MARTIN PROCTOR, *Educational and Vocational Guidance*, p 41, Boston Houghton Mifflin Company, 1925

[2] J MCKEEN CATTELL, unpublished address before the Psychological Section of the American Association for the Advancement of Science, 1924

The Downey tests of will-temperament. As long ago as 1923, Downey presented her tests for measuring what she called will-temperament, and which she defined as the innate relatively permanent dynamic pattern of the individual The phases of the dynamic pattern which she considered most important were. "(1) those of speed and fluidity of reaction, (2) those of forcefulness and decisiveness of reaction, (3) those of carefulness and persistence of reaction "[1]

In discussing the uses of will-temperament testing for guidance purposes Downey says·

> In giving boys and girls vocational as well as educational advice one should know much of their temperament peculiarities One needs above all to reckon with such things as aggressiveness, speed, interest in detail, perseveration Large demands will be made upon applied psychology of temperament when once it succeeds in establishing itself [2]

For various reasons Downey's tests have not been favorably received by psychologists Certainly they are far from practicable as part of a program which should be attempted for all pupils in the school system But they do constitute a significant early step in the effort to measure important aspects of human personality

Tests of trustworthiness. An interesting attempt was made by Voelker[3] to measure certain character traits among boys who were mostly ten to fourteen years of age He gave cleverly devised tests of truthfulness, honesty, reliability, persistence in carrying out instructions in spite of distractions, and other qualities, all of which he summed up as trustworthiness, to boys in Boy Scout troops, public schools, and private schools In all, ten tests were given, in each of which the temptation to be untrustworthy in some respect was presented, with, apparently, no chance of discovery. Voelker's purpose, however, was not to develop tests of these qualities for general use but as an aid in determining whether trustworthiness is increased under definite training to that end such as is provided by the Boy Scout organi-

[1] June Downey, *The Will-temperament and Its Testing*, p 60, Yonkers-on Hudson. World Book Company, 1923

[2] *Ibid*, p 307

[3] Paul Frederick Voelker, *The Function of Ideals and Attitudes in Social Education*, Teachers College Contributions to Education, No 122, New York Teachers College, Columbia University, 1921

zation, for example. No effort has been made, so far as the writer is aware, to use these tests for purposes of vocational guidance or placement, though they would appear to have such possibilities, except for the amount of work involved in giving them

Tests for taxicab drivers. In an effort to reduce accidents among taxicab drivers of the Yellow Cab Company of Chicago by better methods of selection, Snow[1] developed and used tests for recklessness, carelessness, emotional instability, and lack of foresight A resulting reduction in accidents is evidence of merit in the tests. Others have since carried this type of testing further but for promotion of safe driving by owners of automobiles, rather than for purposes of vocational selection

The Allport Ascendance-Submission Reaction Study. As indicated by its title, this is an effort to discover the disposition of an individual to dominate his fellows or to be dominated by them. This A-S Reaction Study, as it is generally called,

> . . presents a number of situations in each of which the subject is required to select one of a group of standardized responses which most nearly characterizes his usual behavior in that situation. Not all of the responses chosen will reveal an invariable ascendance or submission, for most people show *both* types of behavior at different times and under different circumstances This study, however, has enough situations to detect which of these two types of reaction, if either, is the more characteristic, and the total score gives an expression of the dominance of the one or the other [2]

Two forms of the A-S Reaction Study, one for men and one for women, were designed by the Allports for use with college students or recent graduates A third form, prepared later by Beckman, is an adaptation of the original men's form for business use

The Allports found that the median score on this test of 87 chain-store executives was +10; of 20 general managers in the same organization, +21, of 29 department heads and bureau chiefs of the city government of Cincinnati, +17 1; of 31 water

[1] A. J Snow, "Tests for Chauffeurs," *Industrial Psychology*, I (January, 1926)

[2] R O. Beckman, *The A-S Reaction Study*, Revision for Business Use, adapted from the original form of Gordon W Allport and Floyd H. Allport, New York· Psychological Corporation, 1932.

meter readers, −0.9 Beckman reports that on the adapted form the median of 50 college juniors and seniors was −1, with a range of +29 to −35; the median of 110 managers of variety stores (chain) was +8, with a range of +44 to −26; the median of 20 junior executives in a public utility, +4 5, with a range of +23 to −8, and the median of nonexecutives in a public utility was −4, with a range of +14 to −23.

While results obtained indicate that the A-S Reaction Study scores have significance for vocational guidance, the authors themselves strongly urge that these scores be regarded as suggestive rather than conclusive, and stress the fact that many other items of information concerning the individual must be taken into account along with his A-S score

The Bernreuter Personality Inventory. The purpose of the Bernreuter Personality Inventory is to measure several different aspects of personality at one time. The inventory consists of 125 personal questions before each of which the subject is expected to draw a circle around "yes," "no," or "?." "Do you daydream frequently?" and "Do people ever come to you for advice" are samples of the questions

The six scales now available for application to the answers given by the subject are:

B1-N. A measure of neurotic tendency. Persons scoring high on this scale tend to be emotionally unstable Those scoring above the 98 percentile would probably benefit from psychiatric or medical advice Those scoring low tend to be very well balanced emotionally

B2-S A measure of self-sufficiency. Persons scoring high on this scale prefer to be alone, rarely ask for sympathy or encouragement, and tend to ignore the advice of others Those scoring low dislike solitude and often seek advice and encouragement.

B3-I. A measure of introversion-extroversion Persons scoring high on this scale tend to be introverted, that is, they are imaginative and tend to live within themselves. Scores above the 98 percentile bear the same significance as do similar scores on the B1-N scale. Those scoring low are extroverted, that is, they rarely worry, seldom suffer emotional upsets, and rarely substitute daydreaming for action.

B4-D. A measure of dominance-submission Persons scoring high on this scale tend to dominate others in face to face situations Those scoring low tend to be submissive

F1-C A measure of confidence in oneself. Persons scoring high on this scale tend to be hamperingly self-conscious and to have feelings of

inferiority, those scoring above the 98 percentile would probably benefit from psychiatric or medical advice. Those scoring low tend to be wholesomely self-confident and to be very well adjusted to their environment

F2-S. A measure of sociability. Persons scoring high on this scale tend to be non-social, solitary, or independent. Those scoring low tend to be sociable and gregarious.[1]

Coefficients of reliability for each of the first four scales ranged from 85 to 92, as computed by their author. Also, he found a high correlation between scores obtained on the four parts of his inventory and tests of the same qualities by such psychologists as Thurstone, Laird, and the Allports.

Bernreuter reports that this inventory has been used successfully with high school students, college students, and adults Others who have used it differ considerably in their estimate of its value for vocational guidance purposes The University of Minnesota Employment Stabilization Research Institute reported that personality characteristics as measured by the Bernreuter Inventory do not differentiate clerical workers of various types from the general population [2] On the other hand, the institute reported that class A factory workers, comprising about 3 per cent at the top of the hierarchy of skilled mechanics, appear to have a distinctive personality pattern, characterized by greater than average "self-sufficiency" and less than average "extroversion" and "stability," though the less skilled classes of factory workers, B, C, D, and E, comprising 97 per cent, show no striking differences as measured by the Bernreuter Personality Inventory [3]

The Bell Adjustment Inventory.[4] As stated in the manual accompanying it, this self-administering adjustment inventory

[1] ROBERT G BERNREUTER, *Manual for the Personality Inventory*, Stanford University, Calif Stanford University Press, 1935

[2] DOROTHY M ANDREW and DONALD G PATERSON, *Measured Characteristics of Clerical Workers*, University of Minnesota Employment Stabilization Research Institute Studies, Vol III, No 1, Minneapolis. University of Minnesota Press, 1934.

[3] VERNE C. FRYKLUND, *The Selection and Training of Modern Factory Workers*, p. 15, Minneapolis. University of Minnesota Press, 1934

[4] HUGH M BELL, *The Adjustment Inventory*, Stanford University, Calif · Stanford University Press, 1934

provides four separate measures of personal and social adjustment

a. Home Adjustment. Individuals scoring high tend to be unsatisfactorily adjusted to their home surroundings. Low scores indicate satisfactory home adjustment

b. Health Adjustment High scores indicate unsatisfactory health adjustment, low scores, satisfactory adjustment.

c Social Adjustment Individuals scoring high tend to be submissive and retiring in their social contacts. Individuals with low scores are aggressive in social contacts

d. Emotional Adjustment Individuals with high scores tend to be unstable emotionally. Persons with low scores tend to be emotionally stable

The inventory consists of 140 questions to each of which the subject is asked to make response in the same manner as in case of the Bernreuter Personality Inventory Sample questions are. (*a*) "Do you sometimes feel that your parents are disappointed in you?" (*b*) "Have you had considerable illness during the last ten years?" (*c*) "Did you ever take the lead to enliven a dull party?" (*d*) "Do you frequently have spells of the 'blues'?"

According to its author, the Personal Inventory has been successful when used with persons of high school and college age of both sexes. In general it has been favorably regarded by those who have used it

Other tests and inventories in the field. One who is deeply interested in possible vocational guidance values of other efforts in this field should examine the Thurstone Neurotic Inventory, the Laird C2 Introversion Test, the Willoughby EM (Emotional Stability) Scale, the Woodworth-Wells Psychoneurotic Inventory, the Pressey X-O Test, the Neyman and Kohlstadt Introversion-Extroversion Test, and the Kent-Rosanoff Association Test

Significance of personality inventories for vocational guidance. Words of caution on this point were sounded by Bingham several years ago when he said.

Caution is needed for two reasons· the low reliability of the individual measures, and the great flexibility or modifiability of many personalities Temperament and habitual emotional attitude differ in these regards from intelligence, which remains roughly constant with the passage of

the years The introvert cannot greatly alter his I Q , but he sometimes outgrows his shyness, suppressions, his tendencies to reverie, his slowness to act. The extrovert may learn to meditate, to be more considerate, to check a natural abruptness to action.[1]

Even earlier Kitson pointed out that we do not yet have scientific proof that there are general traits like industriousness, aggressiveness, and the like, which can be measured and which express themselves equally pronouncedly in all the activities of the individual; nor are we justified in assuming that precisely these traits are those called for in certain specific vocations. He adds.

Perhaps they are We cannot assert it, however, until we have measured a number of workers in different vocations and have discovered that successful lawyers, for example, stand higher with respect to the trait designated as "aggressiveness" than do unsuccessful lawyers, or persons in a vocation said to call for lack of aggressiveness [2]

No doubt it is true, as Bingham says, that personality traits of many individuals are modified considerably with advancing years Furthermore, as Kitson points out, the degree of industriousness or aggressiveness evidenced by an individual varies greatly in different activities However, it still seems probable, from the evidence already available, that only in exceptional cases and usually in comparatively minor respects does the *total personality pattern* of most individuals change with advancing years or differ in different activities

It seems reasonable to expect that, with growing interest in the subject on the part of psychologists, personality patterns of different occupational groups will be determined much more satisfactorily than at present Therefore, while proceeding cautiously in the use of personality tests and inventories for vocational guidance purposes, vocational counselors and other personnel workers may look forward to more reliable objective measuring instruments of personality and to their wider use Thus far no evidence has been presented which bars the possibility that personality patterns, or profiles, may not find at least

[1] WALTER VAN DYKE BINGHAM, "Personality and Vocation," *British Journal of Psychology*, XVI (1925–26), 361

[2] HARRY DEXTER KITSON, *The Psychology of Vocational Adjustment*, p 179, Philadelphia J. B. Lippincott Company, 1925

as large a place as interest patterns in future vocational guidance programs, even though determining personality patterns may well be a more complicated and difficult task.

PERSONALITY RATING SCALES

Nature of a personality rating scale. The efforts to measure aspects of personality that have just been considered are objective in nature In a given situation any competent user of the measuring instrument should obtain the same result as any other competent user Another and much more extensively used instrument for measuring personality traits is the rating scale Everyone, consciously or unconsciously, forms opinions concerning the personality traits of those whom he knows well These are, of course, purely subjective judgments, often colored favorably or unfavorably by chance circumstances The personality rating scale is nothing more nor less than the result of efforts to systematize and refine this common practice of human beings to form subjective judgments concerning their fellows. The purpose is to obtain a reliable and useful estimate of an individual's personal qualities

Types of rating scales. A well-known type is the numerical rating scale. The rater is asked to estimate the degree to which the person rated possesses each trait under consideration, and to indicate this on a numerical scale ranging from 1 to 3, or 1 to 5, or 1 to 7, or 1 to 10, 1 usually representing the lowest degree and 3, 5, 7, or 10, depending on the number of points in the scale, representing the highest degree Sometimes a straight line takes the place of the numbers and the rater is asked to place a check mark at some point along this line The names "linear" and "graphic" have both been applied to this type. In case of a third type, the rater is asked to arrange the group of people being rated in order of merit on each trait A fourth type, the man-to-man rating scale, provides for comparison of the person who is being rated with three or five persons well known to the rater—one of whom possesses the particular trait to a low degree, another to a high degree, and the others to intermediate degrees

Precautions in using rating scales. Experience with rating scales has indicated that a number of precautions need to be observed if they are to prove of greatest value.

1. It is obvious that the independent judgments of three or five people who know the rated person well are more reliable than the judgment of a single rater. In fact, some authorities say the number of raters should be three to eight, while others suggest five to ten in order that the composite result may have reliability. Schools that make use of personality rating scales, therefore, provide for ratings by several different people. Sometimes an average of the different ratings is computed and recorded.

2. Those who do the rating should have a common understanding of the traits on the scale. This calls for a clear definition of each trait. A good type of definition is one which states in specific terms how an individual behaves who possesses the particular trait in the highest degree and in the lowest degree represented on the scale. An illustration is found in the rating scale developed by Hughes in the schools of Pasadena, Calif. The highest rank in regularity-persistency is described as follows:

> Is found in the right place at the right time. Works regularly and on time. Completes job before leaving it. Perseveres even when making little progress. Holds tenaciously to worth-while purposes. Is generally consistent in thought and behavior.[1]

The lowest rank in the same quality is described in the following language:

> Is seldom found in right place at right time. Works sporadically. Habitually leaves job unfinished. Is discouraged by trifling obstacles. Is inconsistent in thought and behavior. Is conspicuous for procrastinating.[2]

The highest rank in cooperativeness carries this description:

> Participates extensively in the worthy group activities. Gives up own preferences when they interfere with the general good spirit and welfare of the group. Is extraordinarily fair-minded and generous. Is democratic. Does not expect special favors or privileges. Seems happy in his work and play with others. Is always ready to do his part in any legitimate cooperative undertaking.[3]

[1] W. HARDIN HUGHES, "A Rating Scale for Individual Capacities, Attitudes, and Interests," *Journal of Educational Method*, III (October, 1923), 60.

[2] *Ibid.*, p. 60.

[3] *Ibid.*, p. 61.

These descriptions were later shortened, as will be noted by examining the later form of the scale found on page 225

3. It is better to rate all individuals of a group on the first trait, then on the next, then on the next, until the job is finished than to rate each individual, one after the other, on all the traits The former procedure gives greater accuracy and the rater usually finds it easier and less confusing

4. The list of traits on a rating scale should be short and each item should be selected with great care The Hughes list originally included twelve items This was later reduced to seven—industry, accuracy, initiative, reliability, cooperation, leadership, and physical vitality.[1] Eurich and Wrenn state that from three to five traits is the accepted maximum for a good scale [2]

5. No rater should be asked to rate every individual in a group on every trait on the rating scale It should be understood that no judgment is expected unless the rater has had opportunity to form a fairly reliable judgment This was provided for in the Pasadena scale by asking that only those teachers who have students in group activities rate them on cooperation and leadership

Sample personality rating scales. The Hughes Graphic Rating Scale and the Personality Report form, prepared by the American Council on Education, are presented as illustrations. It will be noted that both of these are of the linear (sometimes called graphic) type, calling for a check mark on each trait by the rater The Personality Report of the American Council provides, also, for the rater to record instances that support his judgment

Personality ratings of students by their fellows. In some high schools each member of a home-room group, 30 or 40 in number, has been asked to rate every other member of the group on certain personality traits. If the matter is properly presented to the group valuable results are often obtained in this way.

[1] W HARDIN HUGHES, "General Principles of Rating Trait Characteristics," *Pasadena Public Schools Educational Research Bulletin*, III, Nos 5 and 6 (February and March, 1925)

[2] ALVIN C. EURICH and C GILBERT WRENN, *Appraisal of Student Characteristics and Needs*, Thirty-seventh Yearbook of the National Society for the Study of Education, Part I, Chap. II, p. 59, Bloomington, Ill · Public School Publishing Company, 1938

HUGHES GRAPHIC RATING SCALE[1]
For Habits, Attitudes, and Traits

Name . . Date .
Last First Middle Semester Year

MINIMUM RATING	AVERAGE	MAXIMUM
	Industry	
Works sporadically		Works regularly and on time
Seldom completes work		Habitually completes work
Uses time injudiciously		Makes judicious use of time
	Accuracy	
Expresses ideas inaccurately		Expresses ideas accurately
Does inexact work		Accomplishes exact work
Uses time injudiciously		Makes judicious use of time
	Initiative	
Succumbs to difficulties		Overcomes difficulties
Shows little curiosity		Shows intellectual curiosity
Seldom starts anything new		Initiates undertakings
	Reliability	
Neglects promises and obligations		Fulfills promises, obligations
Does not admit error when wrong		Admits error when shown wrong
Is undependable in word and deed		Is honest in word and deed
	Cooperation	
Avoids worthy group activities		Participates in worthy group activities
Seems unhappy in team work		Seems happy in team work
Does not subordinate self		Subordinates self to group
	Leadership	
Fails to secure support		Wins support for his cause
Prefers plans made by others		Plans for and directs others
Lessens enthusiasm of the group		Arouses enthusiasm in the group
	Physical Vitality	
Avoids vigorous activities		Active in vigorous activities
Exhibits little endurance		Exhibits endurance in continued effort
Possesses physically weak personality		Possesses forceful personality

Instructions Keeping the definition of the trait in mind, rate the student between "Minimum" and "Maximum" by placing a check (✓) appropriately on the line Try to locate the student according to his standing relative to the average for his age The check may be placed anywhere on the line

Person Rating School. . .

[1] W HARDIN HUGHES, "General Principles of Rating Trait Characteristics," *Pasadena Public Schools Educational Research Bulletin*, III, Nos. 5 and 6 (February and March, 1925).

REVISION A, MAY 9, 1929
AMERICAN COUNCIL ON EDUCATION
744 JACKSON PLACE, WASHINGTON, D C

PERSONALITY REPORT

The information on this sheet is confidential

Name of student . .. .Name of institution .

Please return this sheet to ... .

Selection and guidance of students are based on scholastic records of achievement, health and other factual records Personality, difficult to evaluate, is of great importance You will greatly assist in the education of the student named if you will rate him with respect to each question by placing a check mark on the appropriate horizontal line at any point which represents your evaluation of the candidate

If you have had no opportunity to observe the student with respect to a given characteristic, please place a check mark in the space at the extreme right of the line

In the rectangle below each rating scale please describe briefly and concretely significant performances and attitudes which support your judgment and which you yourself have observed

Let your statements answer specifically the questions of the rating scale by showing how the student manifested the qualities mentioned

Do not be satisfied with the statement of an opinion concerning matters of fact, if the facts themselves can be presented.

Select those illustrations of conduct which are consistent with the personality of the student as you have observed and understood it

Bear in mind that from as many accurate observers as possible the college desires to secure concrete descriptions of the student's personality as exhibited in many situations and that the purpose is an understanding of the student's personality as a whole so that he and all concerned with his education may guide his development to the highest

The following items illustrate the way in which observers have reported evidence in support of their checking of the highest answer to the second question (B)

Of a college senior· "In my course in Elizabethan drama he voluntarily built to scale models of the Blackfriars Theater and the Fortune Theater based on the work of Chambers, Albright and others and demonstrated Elizabethan methods of staging several of the plays read"

Of a college senior· "Independently collected and classified correctly one hundred type specimens of fossils found in the neighborhood of the college"

Of an eighth grade boy "Finding in English assignment, the introduction to Burns' 'The Cotter's Saturday Night,' a reference to Robert Fergusson's 'The Farmer's Ingle' as a possible inspiration of Burns' poem, he looked up Fergusson's poem in the home library and compared it with that of Burns At the same time, desiring to read Burns in the Scottish way he mastered the phonetic system of Sir James Wilson's 'The Dialect of Robert Burns as spoken in Central Ayrshire' which he also found in the home library, and so interested the boys of his class in the pronunciation of Scottish words that even at the end of the year the lads still called each other by appropriate Scottish nicknames and used Scotticisms which they found in Burns and Wilson"

"At the age of eleven began collecting diatoms from local ponds and streams and studying their forms under his own microscope. Now possesses collection of microscope slides, including some presented to him by scientists in Department of Agriculture and Carnegie Institution, specimens collected by Shackleton, Scott and other expeditions"

How well do you know this student? ....

Signature Date Position Address

Name of student ...

A. How are you and others affected by his appearance and manner?	Avoided by others	Tolerated by others	Liked by others	Well liked by others	Sought by others	No opportunity to observe

Please record here instances that support your judgment

B Does he need constant prodding or does he go ahead with his work without being told?	Needs much prodding in doing ordinary assignments	Needs occasional prodding	Does ordinary assignments of his own accord	Completes suggested supplementary work	Seeks and sets for himself additional tasks	——

Please record here instances that support your judgment

C. Does he get others to do what he wishes?	Probably unable to lead his fellows	Lets others take lead	Sometimes leads in minor affairs	Sometimes leads in important affairs	Displays marked ability to lead his fellows, makes things go	——

Please record here instances that support your judgment

D How does he control his emotions?	Too easily moved to anger or fits of depression, etc	Tends to be over emotional	Usually well balanced	Well balanced	Unusual balance of responsiveness and control	——
	Unresponsive, apathetic	Tends to be unresponsive				

Please record here instances that support your judgment

E Has he a program with definite purposes in terms of which he distributes his time and energy?	Aimless trifler	Aims just to "get by"	Has vaguely formed objectives	Directs energies effectively with fairly definite program	Engrossed in realizing well formulated objectives	——

Please record here instances that support your judgment

While the raters lack maturity they usually know each other much better than their teachers know them Also, the large number of ratings helps to assure reliability of the composite result Of course, the same precautions need to be observed as when teachers do the rating

This method of obtaining estimates of personality traits of high school pupils was used recently by two of the author's graduate students[1] who were making case studies of the 25 highest in intelligence and the 25 lowest in intelligence, as measured by the Detroit Alpha Intelligence Tests, in a school of 350 pupils All pupils in the school were rated by their fellow home-room members on seven traits and composite ratings for each pupil were made, but this report concerns only the 50 mentioned above. The following table gives the distribution of the composite ratings for the two groups on each of the traits:

COMPARISON OF PUPIL PERSONALITY RATINGS OF SUPERIOR AND DULL GROUPS*

Personality traits	High		Good		Fair		Poor	
	Superior group	Dull group	Superior group	Dull group	Superior group	Dull group	Superior group	Dull group
Industry	14	1	9	8	2	11	0	5
Cooperation	9	0	13	10	3	12	0	3
Courtesy	7	0	15	16	3	7	0	2
Leadership	9	0	8	6	7	10	1	9
Self-reliance	13	0	7	12	5	8	0	5
Dependability	11	0	13	14	1	10	0	1
Likableness	7	2	11	17	7	6	0	0
Total	70	3	76	83	28	64	1	25

*CLARENCE E HINCHEY, "A Study of Twenty-five Dull Children in a Senior High School," unpublished master's thesis, Ann Arbor University of Michigan, 1935

Self-ratings on personality traits. Attention was given in an earlier chapter to self-analysis as a means of aiding an individual

[1] DOROTHEA E ELBING, "A Study of Twenty-five Superior Children in a Senior High School," unpublished master's thesis, Ann Arbor University of Michigan, 1935

CLARENCE E HINCHEY, "A Study of Twenty-five Dull Children in a Senior High School," unpublished master's thesis, Ann Arbor University of Michigan, 1935

to understand himself, and sample forms used for this purpose were presented These forms call for the individual's estimate of himself as regards several important aspects of personality. Such self-ratings, if available to the pupil's counselor, are often quite valuable for use in arriving at an understanding of the pupil's personality, especially when considered along with the same pupil's ratings by teachers or fellow pupils It may be better in some instances to have the pupil turn in a rating on himself on the same scale that teachers of the school use in rating pupils, rather than to depend upon the longer self-analysis form which is designed primarily for another purpose

Usefulness of personality rating scales and tests compared. It must be remembered that a rating on aspects of personality, however refined the methods of obtaining it may be, is still subjective in character A reliable and valid objective measure is always to be preferred However, adequate objective measures in this field are not yet available, as has been noted. Moreover, there are difficulties in using such as are available with large numbers of pupils It seems likely that much time will elapse before such measures come into general use in the schools. On the other hand, good rating scales are available and can be used in schools without serious difficulties. Since a careful estimate is better than no measure at all, it seems likely that, for some time at least, rating scales will play a larger part than tests in providing the data concerning personality traits which are needed for use in vocational guidance

Social Environment Data

However complete and accurate the information may be which is brought together concerning an individual as a result of tests, inventories, scales, and other measuring instruments, it is still desirable to obtain considerable data concerning his social environment On the one hand, these data are a valuable aid to the counselor in understanding and interpreting the data from other sources On the other hand, they themselves give important suggestions as to what may be expected of the individual in the future. What he will do in a particular situation, in fact whether he should do this or that, often depends upon conditions that belong to his social environment. And this holds true in matters of vocational planning as well as in those of other kinds of plan-

ning. Also, in view of the present limitations on the completeness and reliability of the other types of information available in most schools, it is particularly desirable to give careful attention to social environment data, which may be obtained fairly easily in any community

Data concerning the home. When one undertakes to list items concerning an individual pupil's social environment that have significance in relation to that pupil's vocational plans, the first group of items to claim attention concerns his home. Are the father and mother both living? Are they living together? How many older brothers are there in the family? Older sisters? Younger brothers? Younger sisters? What is the father's occupation? If the mother is employed outside the home, what is her occupation? Are any brothers or sisters employed? If so, what is their work? What are the occupations of uncles and aunts? Is there any "hereditary" occupation in the family? What is the general education of the father? Of the mother? What special vocational education has each of the parents had? How active are the parents in community affairs? In what kinds of community affairs are they active? What educational plans have the parents for the pupil in question? What vocational plans, if any? Are they in position to finance these plans or others that may be made? If not fully, to what extent?

The Sims Score Card for Socio-economic Status,[1] designed for use with pupils of grades 4 to 12 inclusive, is used by some schools for the purpose of obtaining certain significant data concerning the home environment of pupils

Data concerning the pupil's associations outside the home. The general type of neighborhood in which the pupil lives and finds his companions is an item which may exercise greater influence on his interests and personality traits than is generally realized. It may, also, have supplied him with information, accurate or inaccurate, favorable or unfavorable, concerning certain occupations The author's attention was called some time ago to a boy of high I Q whose father was a production worker in an automobile factory and whose associates were sons of

[1] VERNOR L SIMS, *Manual of Directions for the Sims Score Card for Socio-economic Status*, Bloomington, Ill . Public School Publishing Company, 1927.

fathers engaged in the same type of work. In this case both home influences and neighborhood influences tended to restrict the boy's vocational outlook. Possessing sufficient intelligence for any kind of occupation, he was planning to become a machinist, a job which production workers generally consider more desirable than their own—a higher level occupation Apparently the boy's environment had influenced him against production work in favor of the work of a machinist Perhaps his choice was wise, but if the neighborhood occupational horizon had been broader he might very well have developed an interest in some other occupation above the production worker's level.

The clubs, "gangs," societies, and other neighborhood and school organizations of which the pupil is or has been a member, and the general characteristics of his friends and cronies should be taken into account, also. It is generally recognized that these are important influences in the development of interests and of certain personality traits Sometimes the interests are wholesome and the character traits desirable and sometimes they are quite the reverse In either case membership in the organization and personal friends are significant items for use in vocational counseling Such an organization as the Boy Scouts, for example, features discovery of aptitudes and development of vocational and avocational interests by means of a program that is definitely planned for this purpose, as well as to contribute to health and character in its members

The pupil's recreations of all kinds deserve attention also The amount and character of his voluntary reading; the type, extent, and environment of his social activities; his amusements —theaters, movies, concerts, sport contests, and the like; and his physical recreations such as tennis, golf, baseball, swimming, and hiking, come into the picture if it is to be complete

Closely related to his recreations is the traveling he has done Where has he been? Especially, what sort of things impressed him most? Was his interest strongest in the habits and customs of the people, the social, economic, and political problems, the industrial plants, the natural scenery, the historical objects, or in some other special feature of the places visited? What impresses one in the varying environment of travel often gives a clue to his vocational interests.

ACHIEVEMENT DATA

The physical and psychological characteristics of the individual pupil and the more significant environmental influences which affect him having been noted, his achievements next deserve consideration What has he done?

Achievements in school subjects. The pupil's accomplishments in his school subjects have, of course, long been matters of much concern to school authorities. Great care is taken to preserve marks filed at the end of each term for their pupils by teachers of the various subjects Since these marks become permanent records of the achievements of pupils in the subjects pursued, it is obvious that every reasonable effort should be made to ensure their reliability.

Reliability of school grades. It must be admitted that in many school systems more thought has been given to preservation of marks than to making sure that they are fair measures of pupil achievement. As a matter of fact, it has been shown that a teacher's marks often represent, not pupil achievement only, but also the teacher's estimate of native ability, effort, attitude, and other things, including even what students call "apple polishing" It must also be kept in mind that standards of different teachers in marking their pupils differ greatly. It has happened that the same examination paper was marked A by one teacher and D by another teacher of the same subject

Moreover, it should not be forgotten that a single mark covering an entire semester's work does not always fairly represent the work actually done by the pupil This is true especially in such subjects as general shop, which may be made up of several units such as woodwork, sheet-metal work, machine-shop work, and electrical work. A pupil may deserve a poor or average mark on every unit except one, say electrical work, and an A on that one unit. The same thing may happen in physics with its several parts or units dealing with heat, light, sound, electricity, etc., and also in general science

Facts of this kind, which are of great significance for vocational guidance, are lost in an average grade for the semester To be sure, a pupil's complete set of marks in school subjects to date, including elementary and high school work, is much more reliable than his mark in a single subject, since the marks of many

teachers are involved A counselor is interested in a pupil's total subject marks as well as in those of particular subjects

One effort in the direction of obtaining greater reliability in pupils' marks has been to require teachers to rate effort, interest, attitude, neatness, etc., independently of accomplishment Even then most teachers find it difficult to prevent personality impressions from influencing subject grades

Standardized achievement tests. Standardized objective tests on material covered in school subjects have contributed much, and no doubt will contribute much more, to reliability of grades or marks in the various subjects In fact, no better single way of making school marks mean what they are supposed to mean is available, if the tests are used properly. No more carefully prepared tests of this type are available than the Cooperative Achievement Tests designed for high school and college classes by the Cooperative Test Service of the American Council on Education [1] The efforts of specialists in subject fields and experts in test construction have been combined in the preparation of these tests A wide range of high school subjects is covered, including English, French, German, Spanish, Italian, Latin, algebra, plane geometry, solid geometry, trigonometry, mathematics for grades 7, 8, and 9, general science, biology, physics, chemistry, botany, zoology, social studies, American history, ancient history, modern European history, economics, and others Within each of several subject fields special aspects of the work are covered by separate tests For example, in the field of English, tests are available in mechanics of expression, effectiveness of expression, reading comprehension, vocabulary, literary acquaintance, and literary comprehension, as well as in combinations of certain of these aspects of high school English work

In addition to the Cooperative and other well-known tests of this type in individual school subjects, are single tests which are designed to measure achievement in a group of subjects. One of the best known of the latter is the Stanford Achievement Test. Form Z.[2] This test is planned for grades 4 to 9 Ten items in

[1] *The Cooperative Achievement Tests A Handbook Describing Their Purpose, Content, and Interpretation,* New York: Cooperative Test Service of the American Council on Education, 1940

[2] TRUMAN L KELLY, GILES M RUCH, and LEWIS M TERMAN, *Stanford Achievement Test,* Yonkers-on-Hudson World Book Company, 1932

all—paragraph meaning, word meaning, dictation, language use, literature, history and civics, geography, physiology and hygiene, arithmetic reasoning and arithmetic computation—are included.

A similar test on a higher level is the Sones-Harry High School Achievement Test Its authors stress the value of this test in educational and vocational guidance of secondary school students or college freshman "The test covers the four fields usually required of students in the secondary school; namely, Language and Literature, Mathematics, Natural Science, and Social Studies . . The range of difficulty of the test is sufficient to measure reliably from Grade 9B to groups of practice teachers in the senior year of college"[1]

The Iowa High School Content Examination[2] is another test of this type which is given by many higher educational institutions to freshmen entering college This test covers the four fields of English, mathematics, science, and history and the social sciences

It is obvious that scores made on well-chosen standardized tests of achievement in school subjects constitute valuable data for vocational guidance purposes However, it should always be kept in mind that such scores must be considered in connection with all the other data available Achievement tests do not measure development of critical thinking or of ability to cooperate with others, for example, as has been pointed out by Eurich.[3] They are designed to measure achievement only

Occupational Proficiency Tests

An occupational proficiency test, as the name implies, is for the purpose of determining an individual's ability to perform the work of a specific occupation. Training for and experience in the occupation are assumed, and the test is designed to measure the results of these or to find out what stage of progress the individual has achieved In a guidance program this type of

[1] W W. D Sones and David P Harry, Jr, *Manual of Directions for the Sones-Harry High School Achievement Test*, pp 2–3, Yonkers-on-Hudson. World Book Company, 1929.

[2] G. M Ruch, G. U Cleeton, and G D Stoddard, *Iowa High School Content Examination*, Iowa City: Bureau of Educational Research and Service, University of Iowa, 1925

[3] Alvin C Eurich, "A Changed Conception of Evaluation," *California Journal of Secondary Education*, XIV (October, 1939), 332

test has its greatest value as an aid to the placement officer in deciding whether a pupil shall be recommended for a particular position requiring known standards of proficiency. Tests of this type are valuable, also, in determining when a pupil in training for an occupation has mastered particular units of that occupation.

In a sense all tests given by vocational teachers to their pupils are tests of occupational proficiency. The teacher in giving a test seeks to find out what the pupil can do in the occupation for which he is preparing. But vocational teachers, like all others, differ as to standards of attainment which should be expected upon completion of a given course of training, and differ still more in the tests they devise for measuring this attainment They differ also in the way they rate the work done by a pupil both throughout the course and in the tests given On these accounts the placement officer knows very little as to the actual vocational proficiency of pupils who come to him for assistance in finding employment, even though he has their ratings by vocational teachers In this situation the need for standardized occupational tests which can be rated objectively is very apparent

A number of individuals have constructed and used tests of this character, and in some instances efforts have been made to extend the use and gain general acceptance of these tests Especially has this been true in the case of stenography and typewriting Among the best known tests of proficiency in these subjects are those of Bills, Burt, Cody, Hoke, O'Rourke, and Thurstone. One of the most recent of these and generally considered one of the best deserves brief description here

The Typist and Stenographer Examinations of the U.S. Civil Service Commission. These were prepared by O'Rourke and his assistants. Tests in typing from plain copy, typing from rough draft, and taking and transcribing dictation are included In addition, a 75-minute general test is given which is designed to measure the adaptability, mental alertness, and knowledge needed by typists and stenographers Commenting on these examinations, Bingham says

> The three tests of proficiency in typing and stenography, with the accompanying tables of norms, enable a teacher to ascertain which ones of his students have reached the standards of performance required in business firms and in government offices, while the General Test

serves to measure a student's aptitude for clerical work and indicates in a general way the level of clerical employment to which he is suited [1]

The army trade tests. The most comprehensive undertaking in the construction of occupational proficiency tests is found in the trade tests devised by the War Department of the United States government during the First World War [2] In filling out the required blanks when he entered the army, each man was called upon to state his previous occupation As workmen were needed for the different trades, men were selected and assigned upon the basis of these statements. It was soon found that men who had given their previous employment as electrician, for example, ranged all the way from novices to expert electricians It became necessary to classify those who called themselves electricians, and those who professed other trades as well, so that when a worker of any grade was needed he could be selected at once. This gave rise to the trade tests by means of which four grades of workers were differentiated. novices who possessed practically no trade knowledge or skill, apprentices who showed a fair degree of proficiency in the trade, journeymen who could be relied upon to perform ordinary trade jobs satisfactorily; and expert workers who could be expected to meet any emergency in their field

Three forms of tests were developed for each of 83 trades Psychologists, engineers, trade teachers, and expert trade workers cooperated in their preparation. One form, the oral trade tests, consisted of a series of 15 to 20 carefully chosen questions concerning materials, tools, machines, and processes used in the trade, how these are used, and the principles underlying their use The questions, requiring very brief answers (often a single word), were such that only a workman who had had extensive experience in the trade could make a high score in the test.

The second form of test, the picture trade test, consisted of an equally careful selection of pictures of tools, machines, and processes of the trade, which were shown one after the other to the subject When a picture was shown the examiner asked a question about it which the subject was expected to answer

[1] WALTER VAN DYKE BINGHAM, *Aptitudes and Aptitude Testing*, New York Harper & Brothers, 1937, p 157

[2] J CROSBY CHAPMAN, *Trade Tests*, New York: Henry Holt & Company, Inc., 1921.

promptly It was believed that some trade workers would do better on this test than on the former for the reason that pictures make it easier for them to recall the actual work of the trade than do the oral questions.

The third form of test used was an actual performance test This consisted of having the candidate do certain typical jobs of the occupation, and grading him carefully on each part of the work done For example, a man taking the test for truck driver was directed, among other things, to drive forward through an S-shaped curve, drive backward through the same curve, drive into a blind street on a hill and turn around without backing any more than necessary, and back up to a platform as if he were going to load his truck Stakes 5 feet apart were placed on each side of the driveway and the number of stakes knocked over was taken into account in making up the driver's score Other items taken into account were racing engine when starting or shifting, abrupt start, grinding of gears in shifting, jerky driving, unnecessary stopping of truck, more than one backing to reach platform, stalling engine, etc. To be sure, few occupations lend themselves as readily as truck driving to this form of test In most skilled trades it is impossible to select a few jobs which can be completed in a reasonable length of time and which are so typical of the trade as a whole as to indicate general trade proficiency.

The practicability of occupational proficiency tests in the schools. The development and use of standardized objective tests of occupational proficiency suitable for use in rating those who pursue any kind of vocational preparatory training in public schools seems entirely practicable, even though little progress in this direction has yet been made. If necessary, much more time could be used in giving these tests under school conditions than was possible in the case of the army trade tests Until recently the most serious difficulty has been that there was no agency which had the organization necessary to prepare the tests and the prestige necessary to bring about their general acceptance and use With the organization of the U S Employment Service, this difficulty has been removed The Division of Standards and Research of that service has been engaged for some time in preparing and standardizing oral trade questions for use in federal-state employment offices throughout the country It is to be hoped that the same agency will extend its work to include

performance tests, also Schools engaged in vocational education should find these tests very useful in the placement of their graduates.

However, it must not be forgotten that occupational proficiency tests measure only present proficiency Taken alone, they give no indication of the candidate's possible improvement in the occupation in the future. The length of time he has spent in preparation for the occupation, his intelligence, any special aptitude he has shown, and such personal qualities as ambition, persistence, initiative, and carefulness should be taken into account in estimating the candidate's future possibilities in the occupation

Achievements in other school activities. No picture of what a pupil has done is at all adequate without taking account of his so-called "extracurricular activities" Attention was given in a previous chapter to the value of these as means of aiding pupils to make an inventory of their own assets and liabilities Here we are concerned with their value to the school in its counseling of pupils What the pupil does in connection with his school but outside his studies is often more revealing of aptitudes, interests, and personality traits than his entire school program In what kinds of activities has he participated: artistic, athletic, civic, dramatic, forensic, journalistic, literary, mechanical, musical, scientific, social? What type of work did he do? For example, if he took part in school plays was he actor, stage manager, or business manager? What was the general quality of his work in each activity that claimed his interest? What school offices has he held? Was he a leader or a follower? What other personality traits marked his participation? It is obvious that if such data are to be of greatest value in vocational counseling much better methods of collecting them and of assuring their reliability must be developed than are in vogue at present.

Achievements in out-of-school activities. What the pupil has done and is now doing in his home, in nonschool clubs and other organizations, and in activities of an individualistic type deserve consideration, also. Does the girl have home responsibilities such as caring for younger children, preparing meals, repairing clothing, keeping the house in order? Does she take private lessons in music, art, or dancing? Of what organizations is she now or has she been a member? What offices has she held?

What has she done through hobby activities? Does the boy have any regular chores at home? Does he have a workshop? What has he made outside the school shops? Has he a postage-stamp or other collection? What organization memberships and offices has he had? What kind of private instruction, if any, has he received? What work for wages, if any, has either boy or girl done? And, of course, whatever reliable information can be obtained concerning the quality of performance in the various activities is desirable. It is quite possible that a pupil who has done poorly in schoolwork has done something noteworthy outside of school that is quite significant for vocational guidance purposes.

DATA CONCERNING THE INDIVIDUAL'S EDUCATIONAL AND VOCATIONAL PLANS

Mention was made earlier of the need for knowing what plans parents cherish with reference to the education and future vocations of their children. It is even more important to know what the pupil himself is planning, and why, even though plans of pupil and parents agree. In case of the junior high school pupil, does he expect to enter senior high school? What curriculum does he expect to pursue? Has he thought seriously of any particular occupation that he would like to follow? If so, what is it? Why does he favor this occupation? What plan has he for obtaining the needed preparation? What other occupations, if any, interest him?

If the pupil is in the senior high school, similar information will be needed. But in this case new questions arise. Does the pupil expect to graduate from high school? Does he plan to go to work when he leaves high school, either before or at graduation? If so, what kind of work does he hope to do? Does he expect this to be permanent or temporary? What does he hope to do permanently? What preparation for this work is he planning to obtain while in high school? What are his plans for further preparation after leaving high school? If he expects to go to college, what type of college has he in mind? Why? What occupation does he expect to follow? What preparation does he plan to make for it and in what special or professional educational institution? If no occupation has been chosen, what ones are being considered? Other questions may need to be added to

the list. If a vocational counselor is to be genuinely helpful to a pupil he must be well informed concerning that pupil's ambitions and plans.

RECORDING THE DATA COLLECTED

Throughout the rather lengthy discussion of the Personal Data Collecting Service, reference has been made again and again to the value of this service in counseling and other guidance services. The effort throughout has been to ascertain what facts concerning the individual pupil are desirable and how these should be obtained in order that vocational counseling, placement, and follow-up may be effective. Obviously these facts must be recorded in readily accessible and understandable form if they are to serve the purpose for which they were assembled.

Procedure in preparing suitable record forms. Since there is no object in recording data that will not be used, the first step in preparing suitable record forms for any school system is to determine what facts can be used advantageously. This will differ in different school systems, according especially to the provision made for vocational guidance. For this reason the use of standard forms has not worked out very well, though many valuable suggestions, both as to items and arrangement, can be obtained from these forms. It is suggested that some such list of data as is given in this book under the discussions of general data, physical data, psychological data, social environment data, achievement data, and data concerning the individual's educational and vocational plans be checked through with care in the light of local conditions and such items be selected as local conditions and the proposed local program warrant. Items from forms used in other cities or items suggested by peculiar local needs may be added to the list if desired. A record of counseling interviews and of adjustments of the pupil's program should be included, also. In preparing this list it should be kept in mind that comprehensive data are absolutely essential to an adequate program of vocational guidance.

The next step is to arrange the form for the individual pupil's permanent cumulative record. This form may be printed on a card or on a folder. The tendency in recent years has been to regard the standard folder, 9 by 12 inches, as more satisfactory, and to have it planned for the four, six, or eight years of

the secondary school period. If a folder is used, the pupil's record from elementary school, which should be cumulative, is usually filed in it. Also, any correspondence with the pupil's parents, anecdotal material concerning the pupil sent in by teachers, and other information that is useful in understanding the pupil but does not need to be placed on the permanent record form would naturally find their way to this file

A third step is to prepare blank forms for use in gathering from various sources the information that is to be placed on the permanent record form Some of these will be forms for reports on groups of pupils—semester reports on the scholastic records of the various classes, reports on group tests of general intelligence, personality ratings on their groups of pupils by home-room or subject teachers, and the like Other forms will provide for individual reports such as those on physical examinations, psychiatric examinations, and individual intelligence tests Again, the number and kinds of forms will be determined by local conditions and by the nature and extent of the vocational guidance program

The cumulative record folder of the American Council on Education. One of the most carefully planned and complete cumulative record forms for secondary schools is that prepared some years ago by the American Council on Education. This form is printed on both sides of a sheet of cardboard 11½ by 17½ inches, folded once to give four pages The first three pages are reproduced on pp 242–244. The fourth page, devoted to Notes, is not shown.

Summary

Intelligence tests and special aptitude tests indicate better what one *can* do than what one *will* do Drive, emotional stability, initiative, ambition, disposition, and other personality characteristics also are important items to be considered in choosing a vocation both because they indicate how effectively the individual will probably use whatever intelligence and aptitudes he possesses, and because occupations differ decidedly in respect to their personality requirements

Efforts to measure personality traits by means of tests have covered such items as will-temperament, trustworthiness, neurotic tendency, self-sufficiency, introversion-extroversion, dominance-

1 — M F — W C

LAST NAME | FIRST NAME | MIDDLE NAME | RELIGION | DATE AND PLACE OF BIRTH | SEX | COLOR

2 YEAR

GRADE — ACHIEVED / ATTENDED

4 AGE — MENTAL / CHRON

5 — PERCENTILES — GRADES — 1 ELEM SCH RECORD — 2 — 3 J F M — 4 A M J — 5 J A S — 6 O N D — 7 J F M — 8 A M J — 9 J A S — 10 O N D — 11 J F M — 12 A M J — 13 J A S — 14 O N D — 15 J F M — 16 A M J — 17 J A S — 18 O N D — 19 J F M — 20 A M J — 21 J A S — 22 O N D — 23 J F M — 24 A M J — 25 J A S — 26 O N D — 27 J F M — 28 A M J — 29 J A S — 30 O N D

ACHIEVEMENT TESTS AND SCHOOL MARKS
● STANDARDIZED TESTS
○ LETTER GRADES
⊕ LOCAL PERCENTILES
⊗ HEIGHT AND WEIGHT

Row	Percentiles	Grades
6		A
7	98	A–
	93	95
8		B+
	84	90
9		B
		B–
	69	85
10		C+
	50	80
11		C
	31	75
12		C–
	16	70
13		D
	7	65
14		F
	2	
15		F

PHOTO

16, 17, 18, 19, 20, 21, 22, 23 — STUDIES, CREDITS, GRADES

24 DISCIPLINE

25 COUNSELORS

26 NAMES AND TYPES OF SCHOOLS

27 REASONS FOR LEAVING

28 NUMBER OF DAYS ABSENT

No.	Item																	
29	YEAR																	
30	AGE																	
31	NOTABLE ACCOMPLISHMENTS UNUSUAL EXPERIENCES																	
32	CLUBS, OFFICES																	
33	EXTRA CURRICULUM EXPERIENCES	ATHLETIC																
34		HOURS A WEEK																
35		NON ATHLETIC																
36		HOURS A WEEK																
37	VOCATIONAL EXPERIENCES	TYPE AND																
38		DURATION																
39		WEEKLY PAY																
40		HOURS A WEEK																
41	SUPPORT OF SELF AND DEPENDENTS																	
42	LOANS AND SCHOLARSHIPS																	
43	STUDY CONDITIONS AND HOURS OF STUDY A WEEK																	
44	SUMMER EXPERIENCES																	
45	EDUCATIONAL PLANS																	
46	EDUCATIONAL SUGGESTIONS																	
47	VOCATIONAL AND PROFESSIONAL PREFERENCES																	
48	INTERESTS REPORTED																	
49	PHYSICAL DISABILITIES																	
50	HEALTH																	
51	MENTAL HEALTH																	
52	SOCIAL ADJUSTMENTS AND HOME CONDITIONS																	
53	COMMUTING TIME HOURS A WEEK																	

54 STUDENTS ADDRESSES
H=HOME
S=SCHOOL
T=TELEPHONE

	PERSONALITY RATINGS
55	+2
56	+1
57	0
58	−1
59	−2

60 PERSONALITY MEASUREMENTS
NAMES OF TESTS USED

	NAME	HEALTH	RELIGION	DECEASED DATE	PLACE OF BIRTH	ARRIVED IN U S DATE	EDUCATION DEGREE AND KIND	OCCUPATIONS	ADDRESSES	TEL.
61	FATHER									
62	MOTHER									
63	STEP PARENT									
64	GUARDIAN									

65	A BOYS IN FAMILY	AGE	LIVING AT HOME	SCHOOLING	OCCUPATION	B GIRLS IN FAMILY	AGE	LIVING AT HOME	SCHOOLING	OCCUPATION

	BEFORE 10	AFTER 10
C LANGUAGE SPOKEN IN THE HOME		
D TYPE OF HOME COMMUNITY		

E IF PARENTS ARE SEPARATED GIVE DATE

AMERICAN COUNCIL ON EDUCATION CUMMULATIVE RECORD FOLDER FOR SCHOOL STUDENTS. (PROVISIONAL FORM)

submission, self-confidence, sociability, and others. Caution is necessary in using results of these tests. No doubt personality traits of many individuals are modified considerably with advancing years. The degree to which one gives evidence of a particular trait varies in different activities. More information is needed concerning the extent to which different occupations demand particular personality traits More and better tests in this field are needed. The cost of time and money in giving and scoring the tests is an important item affecting their practicability for school use It is probable that the *total personality pattern* of most individuals is relatively stable. Also personality requirements of different occupations will be determined more satisfactorily than at present It seems quite possible that individual personality patterns, or profiles, will find at least as large a place as interest patterns in future vocational guidance programs

At the present time rating scales are used much more widely than tests in measuring personality traits Numerical, linear, and man-to-man rating scales are the most common types. Important precautions are that several persons who know the subject well should do the rating; raters should have as nearly as possible a common understanding of the traits involved, all individuals of the group concerned should be rated on the first trait, then all on the second, etc ; the list of traits should be relatively short and selected with great care. The rating of pupils by their fellows as well as by teachers is practiced in some schools Self-ratings by the pupils, using the same scale used by the teachers and fellow pupils, is sometimes combined with the above Though open to all of the weaknesses of subjective judgments, personality rating scales when proper precautions are observed will continue to be a valuable asset to the vocational counselor He will wisely use them with discrimination and with due regard for all the other data available

Needed social environment data includes information concerning the individual's home; his associations outside the home—his companions, the neighborhood and school organizations of which he is or has been a member, etc ; his recreations; the traveling he has done and the things that interested him most in his travels

Among the principal items of achievement data that should be brought together for vocational guidance purposes are, of course,

the pupil's records in school subjects, with care exercised that these shall be as reliable as possible. Standardized subject and occupational proficiency tests improve the reliability of such records However, it must be recognized that these tests at their best measure only present proficiency, not possibilities of improvement Achievements in extracurricular activities and out-of-school activities, including any work that the individual has done also belong in the picture The question to be answered by these data is: What has he done that may be significant in planning his vocation?

Finally, data are necessary concerning the individual's educational and vocational plans. How long does he expect to remain in the school he is now attending? What curriculum and what subjects does he expect to pursue? What kind of higher educational institution does he plan to enter and why? Has he chosen an occupation? If so, what is it and how does he expect to prepare for it? This is the type of question that calls for attention here

Suitable record forms are, of course, necessary in order that all of the various kinds and items of data discussed in the last three chapters may be available for ready use in counseling These forms, prepared in accordance with accepted principles, should fit the vocational guidance program of the particular school system in which they are used

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CHAPTER XIII

THE VOCATIONAL COUNSELING SERVICE

The oldest service of vocational guidance in the school is vocational counseling. Wherever the relationship of teacher and pupil exists there is found a setting for questions and suggestions concerning the pupil's future occupation. Often throughout the history of organized education, this setting has resulted in the teacher's giving the pupil definite counsel as to his career. Especially has this been true in case of pupils in the period of adolescence. The head of the school even more than class teachers has felt called upon occasionally to give vocational counsel to individual pupils.

Counseling incidental and unscientific in the past. Nevertheless, comparatively few men and women today can trace their choices of occupation to the influence of a teacher's or principal's advice or help. On the one hand many, probably a great majority of those who make up the adult population of today, never were counseled in regard to vocational plans by teacher or principal. Only a pupil now and then, when conditions were favorable, has had this experience in past decades. Vocational counseling until very recently was quite unsystematic and unplanned. Moreover, such counseling was unscientific in character, often colored by prejudice, and nearly always based upon meager knowledge of occupations and of the qualities and special aptitudes of the one counseled. In fact, these conditions still prevail in most schools.

Efforts to make counseling a regular school function. In the last few years efforts have been made in many city school systems to organize vocational counseling in a more scientific manner. In all parts of the country will be found junior high schools, senior high schools, and four-year high schools in which one or more members of the staff are known as counselors or vocational counselors. A report on this subject for the year ending June 30, 1938, covering 23,032 public secondary schools from which the

U.S Office of Education obtains data every two years, indicated that 2,286 persons were then devoting one-half or more of their time to counseling students in these schools Only two states and the District of Columbia had no such counselor [1] Since some schools employ two or more counselors, considerably fewer than 10 per cent of public secondary schools had staff members who devoted one-half or more of their time to counseling. In 1940 the American Youth Commission reported that "full-time counselors are now to be found in less than 6 per cent of all secondary schools"[2] It is true that in many cases the work done by part-time and full-time counselors does not yet deserve to be called scientific and the vocational interests of students are too often given slight attention, but progress in these directions has been made and an organization favorable to greater progress has been set up. Every year vocational counseling is extending and becoming more systematic and scientific in American schools.

The nature of counseling. Counseling implies a relationship between two individuals in which one gives a certain kind of assistance to the other The term "group counseling" is sometimes used in the literature of vocational guidance These two words do not belong together One might as well speak of "group courting" or "group diagnosis" as of "group counseling." In a counseling situation only two persons are involved, the counselor and the one counseled, sometimes called the "counselee" When more than these two participate in what takes place, the process is something else than counseling; perhaps group guidance such as occurs in a discussion of an occupation in the presence of a group consisting of persons interested in that occupation This characteristic of counseling is well stated by Wrenn when he says,

> First of all, counseling is personal. It cannot be performed with a group. "Group counseling" is an anomaly; the two terms are not in harmony. "Personal counseling" is a tautology, counseling is always personal [3]

[1] ROYCE E BREWSTER and WALTER J GREENLEAF, "A Roll Call of Counselors," *Occupations. The Vocational Guidance Magazine*, XVIII (November, 1939), 83–89

[2] *The Occupational Adjustment of Youth*, p 5, Washington American Youth Commission of the American Council on Education, 1940.

[3] C. GILBERT WRENN, "Counseling with Students," *Guidance in Educational Institutions*, Thirty-seventh Yearbook, National Society for the Study

The assistance given by the vocational counselor to the one counseled consists of help in marshaling the facts that should be considered and in weighing and evaluating these facts in relation to the counselee's vocational plans. It is at once apparent that the facts to be considered are of two kinds, those pertaining to the assets and liabilities of the individual, as discussed in Chaps IX, X, XI, and XII, and those pertaining to the opportunities and requirements of the occupations that interest this individual, as discussed in Chap VIII. It is equally apparent that most individuals, especially when still in the period of adolescence, need help not only in marshaling the pertinent facts of these two kinds but also in seeing their significance for vocational plans, whether in confirming plans already made or in formulating new ones. Vocational counseling does not function effectively unless the latter of these two services as well as the former is performed in a proper way.

In this connection it is well to note that vocational counseling is not giving vocational advice Someone facetiously has said that the worst vice is advice Whether or not this be true, it is certain that giving advice is not a part of wise counseling, though one of the most common weaknesses of vocational counselors Nor is vocational counseling telling an individual what occupation he should follow, after having noted his personal assets and liabilities and having compared these with occupational requirements Phrenologists, physiognomists, and unfortunately, some overcredulous believers in psychological tests often try to tell people what they should do. But this is not vocational counseling Vocational counseling leaves decisions to the counseled individual. Its duty is performed when it helps this individual to follow a wise procedure in arriving at his own decisions, not when it tries to make decisions for him Counseling is no more making decisions for the counselee than is the teaching of algebra solving problems for the one taught

The place of counseling in a vocational guidance program. From what has been said concerning the nature of counseling it is clear that this service constitutes the heart of the vocational guidance program. All the services discussed thus far are

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of Education, Part I, Chap IV, p. 119, Bloomington, Ill Public School Publishing Company, 1938.

brought to a focus in the counseling interviews Services yet to be considered in detail—vocational preparation, placement, and adjustment in employment—stem from the decisions reached or confirmed by counseling It should not be inferred, however, that this lessens in any degree the importance of the other services Unless the occupational information, self-inventory, and personal data collecting services are performed well, the most effective counseling service is impossible And unless provision is made for suitable vocational preparation, placement, and follow-up much of the value of the counseling service is lost.

The counseling program required for all pupils. In order that a program of vocational counseling in a high school may be comprehensive, it must reach all pupils in the school. It is not sufficient to make the counselor's services available to all who wish to consult him It is necessary to require that all come to him for individual interviews just as they are required to take English or history In the case of some pupils, a single interview may be all that is necessary during the entire junior or senior high school period. The vocational choices of these may appear to the counselor entirely suitable, their plans for preparation wisely made, and their progress satisfactory. Even these pupils, however, are entitled to the services of the school's specialist in vocational counseling long enough to find out whether choice and plans and progress are, or appear to be, suitable

In the case of other pupils who have made no choices or whose choices appear unwise, several counseling interviews may be necessary Most pupils will need at least two interviews with the counselor during the junior high school period, one during the first year as they are choosing their curriculum, and another during the last year as they look forward to senior high school or, in a few cases, to employment In the senior high school, as problems of future occupation and preparation for it become more pressing, more frequent conferences with the vocational counselor may be needed by most pupils.

Scheduling individual interviews. It is apparent that a counselor who is to do so much interviewing of individual pupils will find it necessary to make out a schedule of appointments in advance, with a maximum time for each interview, and arrange for pupils to see him according to this schedule Naturally the interviews, if possible, would be scheduled when pupils have

study periods or at other times when interference with classwork would be least serious. But a counselor should have the privilege of scheduling appointments with pupils at times when they are due in English or mathematics or any other subject if necessary, notifying the teacher of the arrangement in advance The counselor's position in the school and his relations with teachers should make this possible without friction A 30-minute maximum should be adequate for interviews, and some counselors may prefer less time than this. If the full time is not required, the remainder may be spent in recording important items that come out of the interview or in preparing for the next interview In case an interview is not completed within a half hour, arrangements can be made to continue it later. Provision should be made by the counselor for voluntary interviews with pupils during the first hour after school each day and at other times

The setting of the interview. It is important that the counseling interview shall have a setting that will give the pupil who comes for his first interview a favorable impression This calls for a private office in which the counselor may talk with a pupil without interruption It calls for an office that is orderly, well kept, and businesslike in appearance, with the needed records readily accessible and for a cordial and friendly but businesslike attitude on the part of the counselor Expecting a counselor to do other than merely incidental counseling when in charge of a home room or study hall and in the presence of other pupils is expecting the impossible, though some schools still provide no better setting for this important confidential service The attitude of the pupil toward the counseling interview is, in fact, a part of its setting If the school does not respect this interview sufficiently to provide favorable conditions for it, the pupil will approach it with an attitude of indifference or distrust. If the principal and teachers believe in this work and are sympathetic toward it, recognizing that it is a school enterprise for which they as well as the counselor are responsible, pupils generally will look upon it with respect and confidence and will approach it with a favorable attitude.

Preparing for the interview. The wise counselor will, of course, make special preparation in advance for each scheduled interview by looking up all the pertinent information available concerning the pupil who is scheduled to see him This informa-

tion should be in the cumulative record files of his office in some such form as described on pages 240–244, Chap. XII. The records would include data discussed in detail in Chaps X, XI, and XII In the case of some pupils there will be reports from local government or social agencies that have aided the family, or from a psychiatrist who has had occasion to examine the pupil, or from a probation officer who is looking after him by order of the court, in addition to the more usual information coming directly from the school or the home Other things being equal, the greater the amount of pertinent information the counselor has in mind concerning the pupil, the more successful will be the interview, both in obtaining further significant information and in directing wisely the pupil's thinking on occupational plans.

The counselor will find it desirable also to select in advance from the available data a few leading items for use in the interview, both in starting it and in focusing it upon the individual pupil's most urgent needs The counselor is no more justified in beginning a scheduled counseling interview without adequate special preparation for that particular interview than is a teacher of physics or history in starting a class period without special preparation for the work of that period

Conducting the interview. If it is a first interview, the first objectives will be to make the pupil feel at ease, to disarm any prejudices he may have against the counselor's office, and to gain his confidence In order to accomplish these objectives the counselor will need to make wise use of what he has learned from examination of the records concerning the pupil's special interests and hobbies The procedure involved is very similar to that used in interviews by the better news reporters. This was ably described some years ago by Isaac Marcosson, the famous war correspondent, in the following language:

Every man is a law unto himself There are no two human beings alike in the world Before interviewing a man, you should learn all about him that you can The more you analyze the process of interviewing the more marked becomes the parallel with salesmanship. Men often fail in business because they use the same arguments with everybody They forget that each human being is a law unto himself It would have been impossible to get next to Lloyd George with the same line of selling talk that you employed to make Sir Douglas Haig break his chronic silence. Each of these remarkable men—and they

are types—required an entirely different line of approach, based upon a knowledge of their work, interests, ambition, and personality.

Ever since those early days I have invariably made it a point to find out all I possibly could about a man before I went to see him. Before the war if I knew nothing about a man's particular hobby or interest I made it my business to find out something about it—whether it was horses, yachts, good roads, landscape gardening, first editions, etchings, or baseball.

Having gained the pupil's confidence, the counselor could easily inquire about his plans for the next year, for the rest of his high school course, and after his high school work is over This would naturally lead to questions concerning the pupil's choice of occupation; whether he has made a choice, why he thinks it suitable, and what preparation he is planning to make for it If no choice has been made, the conversation might be directed toward a few occupations that have aroused the pupil's interest Whatever occupation is discussed should be considered in relation to the pupil's health, physique, temperament, general intelligence, general school record, record in tryout experiences, achievements in extracurricular activities, and the like. Suggested references which deal with an occupation in which he is interested may be given to the pupil, and arrangements may be made for him to talk with someone who has succeeded in the occupation under consideration Of course, attention should be given to his plans for further education.

The pupil may be asked to fill out a self-analysis blank, such as was discussed in a previous chapter, which will give his own estimate of himself with respect to certain important qualities If conditions seem to justify it, attention may be given in a considerate manner to remediable personality handicaps and methods of overcoming them In fact, the counseling interview affords an opportunity to discuss with the pupil any of his personal assets and liabilities that seem likely to affect his educational and vocational plans and to direct his thinking toward increasing his assets and decreasing his liabilities in any way possible

Closing the interview. As the counselor brings the interview to a close, he should sum up with the pupil the situation as it stands. If the situation warrants it, he will make some concrete suggestions as to what the pupil should do in order to gain additional information or experience which will aid him in making his

choice or in preparing himself if a suitable choice is already made. He may find it desirable to stress the fact that a suitable choice is much more important than an immediate choice and to advise delay in reaching a decision until more evidence is available or until the evidence is more carefully studied. In some cases he may wish to schedule another interview at some date in the near future. He will call the pupil's attention to his afterschool office hour when any pupil who wishes may come in and see him about vocational problems.

The pupil should go from the interview with a feeling that choosing his occupation is a serious undertaking and that the responsibility for whatever choice is made must rest with him. He should also carry away with him a profound belief that the counselor is genuinely interested in helping him to make a wise choice and is able to give him valuable assistance in the matter

Recording the interview. In making a record of the interview, part of which may be entered while talking with the pupil if this does not interfere with the success of the interview, and part after he leaves the office, the counselor will check the accuracy of information already on file concerning the pupil and will supplement this with additional information called for on the record blank to which references have already been made He may wish to add a few brief memoranda of things about the pupil that impress him as significant, though he will need to guard against placing too great value upon hastily formed impressions. The self-analysis made by the pupil, while constituting a part of his record in the counselor's office, may well be filed separately from the record blank and be accessible only to the counselor. It should be treated as a confidential statement of the pupil and therefore protected from examination by teachers, who may at times have access to the record blanks referred to above Both record blank and self-analysis will be referred to by the counselor in connection with later interviews and with placement when the pupil leaves school to enter a wage-earning occupation

Later counseling interviews. The general principles which govern the first counseling interview are applicable in later formal interviews also The same consideration, the same respect for the personality of the pupil, and the same care in examining and weighing significant data are essential But, because of the relations already established between counselor

and pupil, and the better understanding of the problem on the part of both, more rapid progress can usually be made toward fairly definite plans or toward solution of new problems that have arisen. Of course, a record of each such interview should be made, no matter how many may take place Sometimes opportunities will arise for the counselor to talk quite informally with a pupil whom he has previously met in a counseling interview. Very effective counseling may result from these informal conversations, if the counselor is good at recalling what was said and done in the more formal occasions of their meeting

Vocational counseling by others than a trained counselor. It has been noted that one function of vocational counseling is to help the individual marshal significant facts concerning occupations that interest him, a second function is to help the individual marshal significant facts concerning himself; while a third is to help him evaluate and interpret these two sets of facts in relation to each other

A vocational counselor will often find it desirable to refer a pupil to another teacher or to some industrial, business, professional, or other type of worker for assistance in the performance of the first of these functions As noted earlier, no other staff member of a senior high school should know as much about opportunities and requirements of occupations in which chemistry is basic as the teacher of chemistry. Nor should any be so familiar with occupations in the electrical field as the teacher of electricity, whether this is taught as a separate subject or as a part of physics It is to be expected that the counselor will say to a boy who is interested in industrial chemistry, "Talk with Mr K, who teaches chemistry, about the opportunities and requirements of that field," or to one who is considering servicing radios, "Talk with Mr. L, who is our school's specialist in the electrical field, about what is involved in servicing radios " The counselor might also send the first boy to a carefully selected chemical engineer and the second one to a leader in the business of servicing radios It is expected in each case that assistance will be given the boy in obtaining facts concerning the occupation involved

It must be understood, however, that little if any help can be expected from the latter sources in the performance of the second and third functions of the counseling service. Neither the

teacher of chemistry nor the chemical engineer has the needed data concerning the boy and neither is likely to have the required training for helping the boy to evaluate the data concerning industrial chemistry in relation to the data concerning himself.

In other cases the counselor may send a pupil to a physician who will help him to form a correct idea of the seriousness of some physical handicap or to a psychiatrist for information concerning an emotional disturbance But these two professional workers are simply helping individual pupils to obtain certain needed facts concerning themselves, and supplying the counselor with these same facts They are not expected to be of direct assistance in performing either the first or third functions of the counseling service. Indeed, they deal with only a small part of the needed facts included under the second function

Responsibility for making sure that the pupil actually organizes both groups of facts in an adequate manner, and for helping him to interpret and evaluate these two groups of facts in their relation to each other still rests, and must rest, with the vocational counselor This is a specialist's job, and he is the specialist employed to perform it.

The "teacher-counselor" in relation to vocational counseling. Jones and Hand treat the "teacher-counselor" as the key person in a guidance program The presentation of their point of view follows:

> Each school would be so organized and so administered that it would be possible for one well qualified person to have intimate and continuous contacts over a series of years with a given group of say, from thirty to forty students These teacher-counselors would serve in the composite capacity of guide, instructor, and director of instruction for their respective groups with reference to the core or common experiences afforded by the school, in addition, the special interests and needs of various groups of students (*e.g*, for higher mathematics, technical science, etc) would be met in specialized courses taught by specialized teachers outside of, or beyond, these core experiences. These teacher-counselors should of course be specially qualified and given sufficient time and adequate facilities to do their work effectively. Each would be assisted in discharging the inseparable functions of guidance and instruction for a given group of students by a "team" of teachers representing respectively the various broad fields of interest and endeavor (social studies, science, language arts, practical arts, etc) with which a functional curriculum would be concerned. A given "team-member

teacher" would of course work with more than one teacher-counselor, and hence with more than one group of thirty to forty students. Also, a given teacher-counselor might serve for a portion of the day as a "team-member teacher" representing some one or more broad fields under some one or more other teacher-counselors.

The major responsibility for the diagnosing and the counseling, as well as for the instructing, of the students in question would thus fall to the adequately trained teacher-counselor aided by his cooperating "team" In addition, there would be available specialized services of a more expert nature in connection with every aspect of the work The primary role of these specialized workers, however, would be that of a teacher of teacher-counselors and teachers, and of consultant All the diagnosing and counseling done by these specialists would definitely and intimately be coordinated with that performed by the teacher-counselor and his team of teachers.[1]

This proposal does not differ greatly from that of placing chief responsibility for counseling on well-trained home-room teachers who, as far as possible, keep the same pupils throughout their stay in junior or senior high school That there are important educational advantages in this arrangement cannot be questioned, though there are often educational disadvantages also It is obvious, too, that such teacher-counselors or home-room teachers must be expected to make important contributions to the vocational counseling program as will be discussed in Chap XVIII But it cannot be expected that adequate vocational counseling will be done by these individuals, along with their teaching and other duties

The specialist in vocational counseling will be needed also, and his duties will consist to a greater extent in conducting interviews with individual pupils than in serving as a "teacher of teacher-counselors and teachers," and as "consultant" In fact, the Jones and Hand discussion seems to be concerned with *individualized teaching* rather than with counseling, or, at any rate, vocational counseling Vocational counseling is too highly specialized an undertaking to expect that in a school of 1,000 pupils approximately 30 members of its staff will be qualified to perform this task effectively, even with a specialist as consultant.

[1] ARTHUR J JONES and HAROLD C HAND, "Guidance and Purposive Living," *Guidance in Educational Institutions*, Thirty-seventh Yearbook, National Society for the Study of Education, Part I, Chap. I, pp. 27–28, Bloomington, Ill. Public School Publishing Company, 1938.

Other duties of the vocational counselor. In addition to his work in connection with conducting counseling interviews with individual pupils, the vocational counselor in a secondary school will perform many other important duties

He will meet with pupils in groups from time to time, explaining the nature and vocational implications of curriculums and schools open to them; acquainting them with the services provided by the counselor's office, pointing out the steps necessary in order to obtain an employment permit or an age certificate and calling attention to the laws affecting young workers; supplying information on a group basis concerning any specific occupation in which the particular group may be interested; and possibly teaching one or more classes in occupational information

He will confer with teachers and other fellow members of the school staff in order to obtain information concerning individual pupils; in order to enlist cooperation in meeting the needs of a particular pupil for educational or vocational adjustment, in order to enlist the cooperation of the subject teacher in acquainting his classes with information concerning the opportunities and requirements of occupations for which his particular subject is basic, in order to encourage more attention by subject teachers to the exploratory values of their work and to secure from them more complete reports concerning pupils' interests and characteristics revealed by these exploratory experiences; in order to ensure better school library facilities for vocational guidance purposes

He will confer with the research bureau or psychological clinic of the school system with reference to giving intelligence, aptitude, and achievement tests in particular instances and reporting upon test results; with the attendance department concerning attendance records and visits of attendance officers and visiting teachers to homes of pupils; with the school health department concerning health examinations of particular pupils and the findings of such examinations; with the office which places youth in employment concerning the placement of pupils who are about to leave school and concerning the success of these pupils after they have been in employment for a time

He will confer with parents in order to acquaint them with the school's efforts to help their children make wise educational and vocational plans, in order to obtain additional information

needed in interviews with pupils; in order that there may be agreement and cooperation between school and home in the help given pupils in making their plans

He will work with representatives of industry, business, and the professions in gathering information concerning occupations for use in the schools, in arranging for occasional talks by successful workers in different occupations to groups of interested pupils; in arranging for individual boys and girls to interview workers engaged in occupations which the boys and girls are thinking of entering, in arranging for groups of pupils to visit industrial and business establishments

He will work with social agencies of the community outside the school system, such as Boy Scout and Girl Scout organizations, Y M C A and Y.W C A, men's and women's service clubs, parent-teacher associations, juvenile court, welfare organizations, C C C. camps, and N Y A in ways that will keep these organizations informed concerning the school's counseling program, gain needed information concerning particular pupils; obtain information concerning the guidance activities of these various organizations and the relation of their activities to the work of the school, bring about a closer coordination of guidance effort in the community, focus the efforts of other agencies with those of the school upon difficult cases

He will concern himself with school records in order that the data on file in his office for each pupil may be as useful as possible in counseling interviews.

In engaging in these varied activities, however, the vocational counselor will do well to keep in mind the fact that their purpose is to make more effective his and his helpers' counseling interviews with individual pupils and to promote the vocational guidance program as a whole, of which counseling is so vital a part The nature of counseling is such that the individual interview must be considered the heart of the counselor's work.

Qualifications of the vocational counselor. Again and again the vocational counselor has been referred to as a specialist. The qualifications of a specialist in any field include (1) personality traits particularly suited to the field, (2) training for the work to be done, and (3) experience related to the field

An interesting preliminary study of traits of vocational counselors as judged by high school principals and directors of guid-

ance was reported some years ago by Walter B Jones. The five traits emphasized in this study are

1 *Breadth of interest* This trait is characterized by such trait actions as (1) Able to get the business point of view (2) Sympathetic with prospective drop-outs as well as with college preparatory pupils. (3) Interested in various types of people (4) Addresses clubs and various organizations (5) Has interest in pupil's home and school life

2 *Cooperation.* Cooperation is characterized by such trait actions as· (1) Does extra work occasionally in a cheerful manner. (2) Cooperates with employers in trying to see their side of employment problems (3) "Spends and is spent" for mankind.

3 *Refinement* Refinement, in which modesty is an outstanding subtrait, is characterized by such trait actions as (1) Is not affected, dominating, or dictatorial. (2) Is not too cock-sure of the wisdom of his own judgment

4. *Magnetism* Magnetism is characterized by such trait actions as (1) Puts others at ease (2) Inspires confidence at interview. (3) Makes pupils feel that they are always welcome to see him and that they will be given help

5 *Considerateness.* This trait is characterized by (1) Appreciates teacher's difficulties in working out student adjustments (2) Exhibits human understanding of those less fortunate (3) Has real love for fellowman without being sentimental [1]

While a more complete study might modify the above list in some respects, this gives a good general picture of the type of person who is suited to the work of a vocational counselor when the needed training and experience, and the maturity that comes with these, are added

In the matter of preparation for vocational counseling, it is generally agreed that a good liberal education is a first essential. Because of the nature of the work to be done, this should include considerable attention to economics, psychology, and sociology. Since vocational counseling is to be carried on in a school system, it is important that the counselor shall understand the more fundamental principles that underlie education; be acquainted with its organization and administration; be familiar with the objectives, curriculums, and methods of secondary schools, and know the principles of vocational education and the varied

[1] WALTER B JONES, "Traits of Vocational Counselors," *The Vocational Guidance Magazine*, IX (May, 1931), 348–353

opportunities, public and private, available for obtaining preparation for occupations Included in the special preparation recommended by a committee of the National Vocational Guidance Association are: principles and problems of vocational guidance, analysis of vocational activities, methods of imparting occupational information, psychological tests in guidance, counseling the individual, placement and follow-up, and field work in vocational guidance Others have added to this list courses in individual differences, mental hygiene of adolescence, and psychiatry When account is taken of the varied duties and relationships of the vocational counselor the tendency is to expand rather than to reduce this suggested program of preparation With growing recognition of the highly specialized professional nature of the work, it seems likely that preparation for it will be extended

As regards experience needed by one who is to do vocational counseling, an excellent statement is found in the certification requirements for counselors set up by the New York State Department of Education.

Experience The range of occupational experience is so great that no person may have all the desirable kinds It is desirable that the counselor have experience in the school grades or type of school in which he expects to counsel. Since the greater number of our young people leave school at an early age and enter factory and commercial occupations, experience in these occupations will be valuable. Other experiences directly related to guidance problems are social case work, visiting teacher service, participating in local surveys and report writing under direction, administrative work in the school grades in which the person expects to work; personnel work in large industrial or commercial establishments

Candidates must have satisfactory evidence of three years of approved experience. This experience must include teaching and such other experience as will enable the counselor to appreciate by contact the problems of young people both in school and in employment The following kinds of experience are particularly valuable

a. Industrial, commercial, and professional, exclusive of teaching but inclusive of personnel work

b. Classroom, shop, or laboratory teaching or administrative work in the school grades in which the counselor expects to work (This does not include student teaching.)

c. Social case work for social agencies and visiting teacher service.

d. Participation in local surveys and report writing under direction, or in laboratory case work and reports on problems related to guidance.

Relation of the vocational counselor to discipline and administration. It must be granted that the list of duties of a vocational counselor presented in this chapter is formidable However, all these duties relate rather definitely to his central activity—helping the pupil marshal and evaluate facts that are significant for his vocational plans Unfortunately vocational counselors are often required to spend much of their time on work that is quite foreign to counseling In studying the actual work performed by counselors in various cities a few years ago, the writer found them handling discipline cases, dealing with absence and tardiness, granting permission to leave school at irregular times or to come late on account of illness, to go to the dental clinic, etc ; granting lunch permits, having charge of all school-assembly programs; supervising school clubs and the school social program, including dances; providing free books, supplies, and other special aid for needy pupils, presiding over study halls, lending money from the school loan fund and checking on repayment of loans; supervising school publications; performing corridor duty, and other similar duties

It appears that, under the guise of setting up a counseling program, some secondary school principals have unloaded a large number of their office duties upon the counselor. True, the counselor is a member of the school's staff and should be expected to take part in the general work of the school But it is unfair to him and to the work of counseling to take his time from work related to counseling when there is more than enough of this to keep him busy, in order to do disciplinary, clerical, and other work essential to the administration of the school but remote from counseling

As a matter of fact, the counseling function and the disciplinary function sometimes conflict When a counselor disciplines a pupil that pupil may develop an attitude toward the counselor that makes impossible for the future the friendly relationship essential to effective counseling. The writer when visiting a large high school a few years ago asked to see a certain counselor. The reply was, "I'm sorry, but you can't see him today He had a disciplinary case this forenoon and the boy blacked his eye." While this is an extreme case, it illustrates

the point That man's value for vocational counseling was gone not only for the boy concerned but for many other boys in the school Possibly the counselor's disciplinary methods were unwise, but disciplinary cases often leave bad feeling however well they are handled. A disciplinary situation usually calls for different treatment than a counseling situation. In general, different personality traits and different preparation are needed for counseling than are usually found in disciplinary officers

The vocational counselor as coordinator of the vocational guidance program. In a later chapter attention will be given to the organization and administration of a comprehensive program of vocational guidance in a city school system and to the place of superintendent, principal, vocational counselor, home-room teacher, subject teacher, and others in this program However, in closing this chapter it seems fitting to stress the coordinating function of the counselor in the vocational guidance activities of any particular school.

His should be the responsibility for planning the program, in cooperation with his principal and the city director of vocational guidance. He should suggest ways in which other members of the school staff may cooperate in the program, and obtain their cooperation As his school's specialist in this field he should be looked to for leadership in bringing together all of the possible contributions of the school to the vocational guidance of its pupils If the school is large, with several counselors, the coordinating responsibility becomes that of the group, usually under the leadership of one member, who serves as chairman If the school is small, with a single counselor who can devote only a fraction of his time to vocational guidance, the coordinating function is still his. The wise principal will recognize the desirability of thus centralizing responsibility for this important work and will see that the necessary authority accompanies the responsibility, at the same time that he selects a well-qualified person for the position.

Summary

Vocational counseling, long a feature of school work on an incidental and unscientific basis, is each year extending and becoming more systematic and scientific.

Counseling implies a confidential relationship between two individuals The vocational counselor assists the one counseled to marshal pertinent facts and to evaluate them in relation to the latter's vocational plans These facts pertain to the assets and liabilities of the counseled and to the opportunities and requirements of occupations which interest him. Vocational counseling is neither giving advice nor telling the counseled individual what occupation he should follow The individual is left to make his own decisions The counseling service is the heart of a vocational guidance program. In a very real sense the occupational information, self-inventory, and personal data services lead up to counseling, and the vocational preparatory, placement, and follow-up services stem from it

The counseling service should reach all pupils at least twice in both their junior and senior high school periods. Many pupils will require additional special interviews The counselor needs to schedule these interviews with individual pupils and make as careful preparation for them as is done in case of class periods of regular school subjects Preparation consists chiefly of studying the pupil's cumulative record, selecting items for consideration, and planning the interview with reference to the personality and needs of the pupil

After the pupil has been put at ease, the interview centers around his vocational plans What vocation, if any, he has chosen; what his strong and weak points are, what prospects he has for continuing his education; how his assets, liabilities, and plans harmonize with his vocational choice, what further information he needs and how he can obtain it are among the principal items which will claim attention Sometimes the counselor will find it wise to refer the pupil to some other teacher or to some worker in an occupation that interests him for assistance in obtaining needed additional information. But responsibility for helping the pupil marshal and evaluate the information obtained remains with the counselor The successful counseling interview is so conducted that the pupil leaves it feeling that choosing a vocation is a serious undertaking for which the responsibility rests with him and that the counselor is ready and able to give him further help later in this matter The counselor will then make such additional entries on the pupil's record forms as seem justified and desirable. Often he will be able to supplement the

work of the formal interview by informal conversations at other times as opportunity offers.

In addition to conducting interviews with individual pupils the vocational counselor will meet with groups of pupils for various guidance purposes and confer with fellow staff members with a view to improving the guidance program of his school Also, conferences with parents, with officers of the psychological clinic and other departments of the school system, with representatives of industry and business, with heads of social agencies, etc , will be necessary But the individual interview is the heart of his work.

Among the personal qualities desired in a vocational counselor are breadth of interest, cooperation, refinement, magnetism, and considerateness. Broad preparation in the fields of economics, sociology, and psychology are considered important besides special preparation in education and in the various aspects of vocational guidance Experience in industry, business, or social work is a decided asset

The vocational counselor should not be called upon to spend his time on matters of general school administration or discipline These functions do not harmonize well with counseling However, he may be expected to serve as a coordinator of the vocational guidance program of his school and in some cases to teach as well as to counsel pupils

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CHAPTER XIV

THE VOCATIONAL PREPARATORY SERVICE

Relation of vocational preparation to a comprehensive program of vocational guidance. In the process of transfer from school to occupational success, preparation for the occupation must, of course, take place somewhere along the line In many occupations, both business and industrial, this takes place after employment begins In others, preparation to a greater or less extent is made in the school or under school supervision before entrance upon regular full-time employment occurs. In still other occupations, a long period of highly specialized preparation precedes actual entrance upon the duties of the occupation, as in case of the professions.

In any case it is clear that the individual's vocational success depends upon the quality and completeness of his preparation as well as upon suitable choice of an occupation Assisting the individual to secure his vocational preparation, wherever and whenever it may be obtained, is, therefore, of concern in considering a program of vocational guidance whether or not it is considered a part of that program [1] However, this subject must be treated briefly here, the reader being referred for a more complete discussion to books devoted wholly to vocational education.

It has already been noted that the vocational counselor should assist pupils who have made definite occupational choices to plan their vocational preparation Having been aided in choosing their work by means of information courses, tryout experiences, and individual counseling, these pupils are now ready for help in planning their preparation, whether this is to be obtained in the school system or outside it, and whether specific preparation should begin at once or be postponed until later This is essentially a function of the counseling service But a school system which undertakes to carry on a comprehensive program

[1] For further discussion of the relation between vocational education and vocational guidance see Chap I, pp 7–9.

of vocational guidance will be obliged to concern itself also with actually providing some vocational preparation as well as with helping individuals to plan such preparation as meets their particular requirements What claims attention in this chapter is the school system's part in providing the needed preparation The question for consideration is. What provision for vocational preparation should be made by a school system which undertakes to develop a comprehensive program of vocational guidance?

Vocational preparation however obtained a charge upon society. Throughout the discussion of this subject it is well to keep in mind the fact that, however vocational preparation is obtained by an individual, in the long run society as a whole pays the bill, or most of it If one prepares in a state educational institution for a profession, the public at once assumes a part of the cost in taxes for support of the institution The individual, to be sure, pays heavily for the time being in loss of earnings during his training period and in the price of tuition, books, etc But when one enters upon this special training, the assumption is that society later will more than repay him in larger earnings over a long period of years than he would otherwise receive.

If the individual is prepared or partially prepared by the public school system for a trade or for an office position, the same thing is true If the training is obtained in a private institution conducted for profit, such as a business college, then the entire cost is borne at first by the individual, and the cost to society goes over into the deferred payments column Again, if the training is obtained wholly in employment, its first cost is shared by the learner, in that his wages are lower during the learning period, and by the employer, in that more supervision is necessary, a larger waste of material occurs, there is heavier damage to equipment, etc , during a worker's learning period than later But the employer passes on his share to the public without delay in higher prices for his products or service, while the learner is reimbursed later in the wages of a trained worker [1]

[1] Eaton has phrased well the general point of view expressed in this paragraph "There are those whose understanding of economic law is such that they believe it possible to saddle the cost of a new school building, a new highway, or a war upon posterity by the issuance of bonds It is the same naïve conception that leads to the belief that society can somehow escape the cost of vocational education by turning it over to industry. By allowing

Vocational education a public responsibility. Nor is the fact that the public finally pays for vocational education, however it is obtained by the individual, all that needs to be noted here Public responsibility for vocational education must be recognized and assumed if America's accepted belief in equal educational opportunity for all is to be a reality The idea that a community maintaining a high school which offers a single academic curriculum provides equal educational opportunity for all youth in the community was exploded long ago What this type of school provides is, of course, the same opportunity for all, regardless of individual abilities, needs, and possibilities of profiting from the school's offerings The situation was much improved when the commercial, homemaking, and industrial arts curriculums and a more varied general curriculum were added to the earlier curriculum of academic type But school authorities are coming to recognize that city school systems must go still further and undertake to help youth to obtain preparation in some way for the varied occupations which they enter, if equal opportunities are to be a reality. Helping one to prepare at public expense for college and doing little or nothing toward helping another to prepare for secretarial work or for the work of watch repairing is not observing the spirit of America's favorite educational slogan

This public responsibility for vocational education extends through the same levels as for general education That is, if a general high school course is maintained, then vocational preparation of high school grade should be provided. If a junior college is developed, then the city should be ready to provide preparation for occupations for which as much as two years of

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industry, instead of government, to expend a part of the social income for the extension of vocational education it is in some mysterious fashion not spent, but saved The economist, however, does not see it in that way If it is spent it is spent and society pays the bill. If, however, the public pays through industry it has no control or direction of expenditure. If it pays through taxes to government it may determine the purposes and activities of vocational education with reference to the forwarding of democracy Assuming the soundness of the proposition that government plus industry can support vocational education it follows that government alone can do so It appears to the advantage of democracy that it should undertake that support" THEODORE H EATON, *Education and Vocations*, p. 281, New York: John Wiley & Sons, Inc , 1926.

work beyond high school are needed. Always, of course, whatever is offered should be determined only after a careful survey is made of the vocational education needs of the community But there is no more obligation resting upon the community to provide general education on a certain level than to provide vocational education on the same level Indeed, the one who wishes the latter on the junior college level and is prepared to profit by it is quite as justified in demanding such education of the school system as the one who wishes the former is justified in demanding general education on the junior college level

If conditions do not warrant the establishment of a class with teachers and equipment, the school system may at least arrange for correspondence study under its supervision or may offer to pay the tuition fees for the desired course in some neighboring city, or may arrange for instruction by a skilled worker in his place of employment The school system thus becomes, as it ought, the agency of the community through which vocational education of a certain grade or level, as well as general education of the same grade or level, is made available to those who wish it.

Modern industry and business not organized to provide vocational preparation. The theory advanced by some writers that industry and business should train their own workers, since they reap the advantages derived from the training, needs further examination As a matter of fact, society as a whole and the workers themselves as well as the employers reap these advantages, as has already been observed. All benefit together from proper preparation of workers. But more fundamental to this discussion is the fact that *industry and business are organized to do production and service jobs while preparation of workers is an educational job.*

When a foreman or a skilled workman takes time from his work to teach a learner, production usually suffers immediately, and it is for production that these men are paid It may be argued that in the long run production does not suffer but is benefited because of greater efficiency on the part of the learner. But modern competition makes pressure for immediate production so strong that neither foreman nor skilled workman can take time to do a good job of teaching, even if qualified to do it. Here again, the fact that their job is production and their training and experience are along this line leaves them without the needed

qualifications for the educational job of teaching learners Again, it often happens that efficient production requires a learner to keep on doing for weeks something that he has already learned to do well when efficient training would require that he be transferred to something new. In other words, efficient production methods and effective teaching methods often clash when industry undertakes to prepare its own workers

Some large industrial and business organizations have recognized this situation and have developed training programs for learners which reduce or eliminate these difficulties and provide reasonably adequate preparation for work in their own organizations, though this training is often rather narrow as far as the same occupations in industry and business as a whole are concerned But many large companies and nearly all small ones find it impracticable if not impossible to maintain a training program which resolves the fundamental conflict between production methods and training methods in modern industry In the more leisurely handicraft stage of industry of 150 years ago, when the apprentice was bound to a master craftsman for a period of four to seven years and worked directly under this master, it was to the master's interests to train the apprentice quickly and well Modern methods of production have changed this situation and brought about the conflict mentioned above

Vocational preparation a cooperative enterprise under control of the public school system. Since the final cost of vocational preparation, however obtained, is paid by society as a whole; since modern industry and business cannot be expected to provide adequate vocational preparation; and since society is under the same obligation to furnish vocational as general education or abandon its claims to provide equal educational opportunity for all, the logical conclusion is that society, as a matter of economic self-protection and in meeting its responsibility to the rising generation, should determine how this preparation can be given most effectively and economically for each occupation and what public provision is necessary and desirable for the purpose. Possibly some of the preparation now given in employment could be given better in a tax-supported school before employment begins Possibly some of that now given in a tax-supported school in advance of employment could be given better in employment. Possibly more vocational preparation should be

given upon a cooperative plan arranged between public school, employer, and workers in particular occupations

It is logical to conclude, also, that society should approach this task and undertake to answer these and other pertinent questions through the agency which society has set up for the particular purpose of doing educational jobs—the public school system With its traditions along this line, its staff trained for this purpose, and its methods developed to this end, surely the school system should be better qualified to have charge of the needed educational jobs of the community than any other agency But no school system can solve this difficult problem alone Cooperation with employers and with workers is absolutely essential to an effective program of vocational preparation in any community. Failure to obtain this cooperation will be just as fatal to the program as failure of the school system to assume the leadership and the responsibility that belong to it in carrying forward this important educational undertaking.

A continuous occupational survey of community necessary Only one satisfactory way has yet been found in which public school authorities in any community can determine what vocational preparation they should provide and how they should provide it. A careful investigation or survey of each occupation, with the cooperation of workers and employers, is necessary Such an investigation must seek to answer the questions: (1) What training is necessary for success in the occupation? (2) What conditions are necessary in order that this training may be given effectively and economically? (3) Can these conditions best be realized in a tax-supported school, in employment itself, or in a combination of the two? Furthermore, evidence of this character must be kept up to date by checking from time to time as conditions change

It will be found that the same investigation which supplies the information needed to determine how preparation for a given occupation should be provided will readily supply also the material needed concerning the same occupation in occupational information courses and in individual counseling Really, a continuous occupational survey of the community is needed for all three of these purposes and should be provided for in a comprehensive program of vocational guidance. Along with this survey would go, very naturally, an investigation of the effectiveness of

the vocational preparation which the schools are providing; for it will be found necessary not only to determine what vocational preparation the school system should furnish but also to ascertain from time to time how effectively this is given. In planning and carrying through a survey of this type, *How to Make a Community Youth Survey*, a pamphlet published recently by the American Youth Commission, will be found helpful

When it is proposed that the vocational preparation which a community ought to furnish through its public schools should be determined by a local survey, it is assumed that needs of this character differ in different communities The population of the community, the general character of its industrial and business activities, the number of trained workers needed in various lines of employment, the vocational education already provided in various ways, the extent and character of cooperation which may be expected from employers and workers, and many other things would have to be taken into account It is never safe, though it is often done, for one school system to launch a given program of vocational preparation simply because this program has proved successful in another school system.

Nevertheless, along with the survey of local conditions should always go a careful consideration of efforts made by other cities to meet their conditions and needs What has been done elsewhere often suggests interesting possibilities even though it may safely be copied outright only under exactly similar conditions. Also, in determining the vocational education program of any community the needs of those who will seek employment elsewhere as well as of those who remain in the community should be considered

Types of vocational preparation. In the light of what has just been said concerning certain principles and procedures underlying a program of public vocational education, it is logical to ask what the secondary schools are now doing in this respect and what new developments are in prospect.

Three general types of vocational preparation have found permanent places in American school systems Work of all three types is carried on in the agricultural, commercial, home-economics, and industrial fields The three types are:

1. Preparation before employment begins
2. Preparation in connection with employment

3 Preparation for change of occupation.

Preparation before employment begins. When public school authorities first undertook to provide vocational preparation, it was to be expected that educational administrators would think first in terms of the school organization with which they were already familiar. Consequently commercial classes were organized in high schools and, in some of the larger cities, commercial high schools were established to provide high school boys and girls with preparation for business occupations. Following the same lead, household-arts or homemaking courses were developed, classes in agriculture were organized for rural youth, and high school classes or special schools to prepare boys and girls for industrial occupations were established. To be sure, the actual vocational value of much of the work was and still is open to question, but in so far as it was vocational at all it was almost wholly preparation in advance of employment

1. *For business pursuits* This type of preparation for business pursuits has proved very popular. As noted earlier, the report of the North Central Association of Colleges and Secondary Schools for 1935 shows that two-thirds of the 1,330,142 students in the 2,558 schools represented were enrolled in commercial subjects Of course, many of these were taking only one or two commercial subjects for personal use or as part of their general education. But it is well known that the commercial subjects make a stronger vocational appeal to high school students than do the subjects of any other group. Questions might fairly be raised concerning the proportion of commercial occupations for which preparation is provided and the quality of the preparation offered in many of the smaller schools; also, whether many of these boys and girls might not better be preparing for other than commercial occupations. The fact, remains, however, that preparation on this plan for certain occupations in the business field at least attracts the students and gives every indication of being practicable, especially for typing, stenographic, bookkeeping, and general office positions.

2. *For homemaking*. Preparation for homemaking, in so far as the schools have undertaken it, also has been conducted chiefly on the same plan; that is, in advance of actual responsibility for the work of homemaking The North Central report just referred to shows that a little less than 30 per cent of the girls

enrolled in the schools represented were pursuing the so-called "homemaking subjects" in regular high school classes in 1935. While this is not a large percentage of the girls who will assume homemaking responsibilities, and while many questions might be raised as to the narrowness and ineffectiveness of much of the preparation furnished, here is evidence of a widespread effort on the part of public high schools to provide a much needed type of vocational education. The fact that nearly all girls will have to assume homemaking responsibilities, and the further fact that practice work or projects can be carried on in the girls' homes in connection with school instruction, make this occupation one for which preparation in advance of regular employment is particularly suitable There are always enough pupils with common interests to form classes, and opportunities for practical application of the instruction are always available It must be admitted, however, that this occupation, does not either in its preparation aspect or in any other aspect, receive the attention it deserves in vocational guidance programs, probably because it is not a "wage-earning" occupation

3 *For agricultural pursuits* While preparation for agricultural occupations, as a public school enterprise, is carried on almost wholly before regular entrance upon the occupations, nevertheless the fact that many of the students assist their fathers in farm work on Saturdays and in the summer vacations, and the further fact that a considerable amount of supervised home-project work is required make it possible to give this preparation a certain practical character not usually found in vocational education which precedes employment In fact, elements of another plan of training are present, the plan which provides preparation along with practical experience in the occupation

However, agricultural education, as noted in an earlier chapter, has found a place in few large school systems. It is generally thought of as belonging to the small community where rural life and interests are strong. Only a small percentage of the communities in which federally aided agricultural classes are conducted have a population of 5,000 or more And yet, as pointed out earlier, there seems to be no good reason why an adequate system of vocational guidance should not discover many youths in every large city who might well be general farmers or farm specialists and who need an opportunity to prepare for this work

while still in school. Modern life is so organized that it encourages farm boys to go into the industrial, business, and professional occupations of the cities It would be fortunate if more city schools would help their youth to find out whether they are suited to farming and to help those prepare for it who find it a desirable occupation. Surely, with a rural population of more than 50 million, the high schools of the United States should be preparing more than 305,031[1] for agricultural occupations This is, however, a very substantial increase over the 67,545 reported enrolled in such courses 14 years earlier.

4 *For industrial pursuits* One serious difficulty encountered in preparing youth in advance of employment for industrial occupations is that, to a far greater extent than commercial, homemaking, or agricultural education, industrial education breaks up into preparation for specific occupations, such as carpentry, bricklaying, plumbing, painting, toolmaking, diesinking, patternmaking, printing, and the like Thus the number of occupations for which preparation is needed is much larger than in the other fields Only in cities of considerable size or in those where a single industry dominates, are there found enough boys who wish to prepare for any one of these occupations to justify the expense of maintaining the necessary equipment and employing the properly prepared teacher Efforts made in Connecticut to overcome this difficulty by developing a system of state trade schools, with provision for daily transportation of students to and from school if they live at a considerable distance, have met with success, though even in Connecticut some reside so far away that they find it necessary to obtain temporary living accommodations in the town where the school of their choice is located

Another difficulty which must be faced frankly is that when a student completes a two-year trade course at sixteen or seventeen years of age, it is practically impossible for him to find employment at that trade, even with the aid of an efficient school placement office. Industry and labor discourage employment of youth under eighteen years of age and many employers refuse

[1] *Digest of Annual Reports of State Boards for Vocational Education to the Office of Education, Vocational Division, for the Fiscal Year Ending June* 30, 1939, p 108, issued by the Federal Security Agency, Washington. U S Office of Education, Vocational Division.

to consider applicants under twenty. Important new factors affecting the situation are minimum wage legislation, desirable as it appears to be in most respects; workmen's compensation laws, which forbid employment in many types of work of youth under eighteen years of age; and the seniority provision of agreements between employers and labor organizations which require that, when the working force is reduced, those most recently hired shall be laid off first, and when the force is later expanded, former employees shall be taken back in the order of their original hiring before new workers can be taken on. The fact is that entrance into wage-earning occupations comes later in the life of the individual than it did 10 or 20 years ago Indications point to the continuance of this trend The result is that preparation for specific industrial occupations in all-day schools now comes later in the student's life than formerly. In fact, there is a growing belief, well expressed in the report of the New York State Regents' Inquiry, that

> What a boy needs vocationally is not so much a "trade" when he leaves school at the age of sixteen, seventeen or eighteen, as sound knowledge undergirding a family of occupations, an understanding of the scientific facts and the economics lying back of these trades, the ability and the character to work effectively with others, and an appreciation of the way changes come and the way the individual may best adjust himself to them. To cap this, at the very end, just before he has a real chance of getting a job, he needs an immediately marketable skill [1]

Enrollments in federally aided industrial schools and classes of the all-day type in the United States have increased rapidly in recent years, being 57,439 in 1928 and 196,465 in 1939 Continued growth may reasonably be expected, but nothing like the growth anticipated by some leaders in industrial education 30 years ago, who believed that three-fourths of the boys and girls who were then leaving school as early as possible to enter industry would stay in school and learn trades if the opportunity were provided So many industrial occupations require only a limited amount of preparation in advance of employment that this cannot be expected. At present the number enrolled is about 1 2 per cent of the number of workers in the manufacturing and mechanical occupations in this country

[1] LUTHER GULICK, *Education for American Life*, p 22, New York McGraw-Hill Book Company, Inc , 1938.

Notwithstanding these difficulties and others that might be mentioned, there can be no question that a great deal of valuable vocational preparation is now obtained in all-day industrial schools, nor, on the other hand, any doubt that much more preparation of this sort might be carried on with profit as a part of public education in advance of actual employment. This is especially true when preparation for a "family" of industrial occupations as well as for specific trades is taken into account. All large cities find a genuine demand for vocational preparation in advance of employment and every city of more than 50,000 population should give careful consideration to the desirability of providing it for a limited number of specific occupations Nor does it seem too much to expect that more state schools for training industrial workers may be established, and more adequate provision made for pupils to earn their living by work done in the school in connection with their training

Vocational preparation by means of supervised correspondence courses. An effort to overcome the first difficulty mentioned, namely, that of providing in a small community preparation for a variety of occupations, deserves attention here In 1922–1923 arrangements were made by S C Mitchell, principal of the high school at Benton Harbon, Mich., for a few of his pupils to obtain vocational preparation from a Chicago correspondence school. At first, each student's correspondence course work was done under the principal's supervision. Later, after Mr Mitchell became superintendent of schools, the work was taken over as a public school project and a full-time teacher was employed as supervisor of correspondence study The correspondence school agreed to charge comparatively small fees for its courses taken in this way The Benton Harbor Board of Education agreed to pay these fees, believing that this was not only the most economical way but also the only way in which they could provide some of the vocational preparation their high school pupils needed. The supervisor made the necessary arrangements for each student, sent in the papers to the correspondence school, and looked after the work in other ways

Later other correspondence schools were brought into the arrangement for the purpose of widening the range of vocational courses offered. In 1938–1939 this little city of 17,000 population had 247 high school students, 22 students in part-time school,

and 4 physically handicapped persons obtaining preparation for occupations on this plan. The list of courses taken included the following: accounting, air conditioning, architectural drafting, automobile mechanics, aviation, building contracting, business management, cartooning, commercial art, Diesel engines, fingerprinting and classification, foundry-shop theory, journalism, machine drafting, navigation, patternmaking theory, photography, practical electricity, practical nursing, radio, reading shop blueprints, refrigeration, salesmanship, service-station work, sign painting, shop practice, sheet-metal pattern drafting, special shop mathematics, taxidermy Twelve correspondence schools were cooperating in this work. Provision was made for laboratory work in such subjects as electricity, radio, aviation, and automobile mechanics

The largest and best known correspondence schools are now promoting this plan with high schools throughout the country Besides offering a possible solution of the small town's difficulty in providing varied vocational preparation, the plan also may be used by larger cities to supplement its usual program by providing preparation for those occupations which appeal to comparatively few pupils In no case, however, should correspondence study be looked upon as a substitute for class instruction where it is practicable to organize and conduct the latter.

Preparation in connection with employment. Vocational preparation carried on in connection with employment is of three general types In one type the student is under supervision of the school and his employment is looked upon as primarily a means of contributing to his vocational preparation. In some cases one-half time is spent in school and the other half at work, while in other cases the proportion of time spent in school is smaller. In the second type he is primarily a worker and the school aids him in preparing better for the work he is already doing or for the next job ahead. Only a few hours per week are spent in the school In the third type the learner acquires skill and knowledge on the job without spending any time in a school To the first type belong the "cooperative" program and the "diversified occupations" program. To the second type belong supervised apprenticeship, the part-time school, and evening vocational classes for adults, the three together being sometimes called "continuation schools." To the third type belongs more

or less informal instruction given usually by foreman or fellow worker as work goes on

The cooperative and diversified-occupations programs. An important difference between these two is that under the cooperative plan students work in pairs, with one on the job and the other in school for a week or more at a time, while under the diversified-occupations plan each student usually works a half-day and is in school a half-day with no one taking his place on the job when he is in school. Both plans are really cooperative in that they both depend upon a high degree of cooperation between school and employers and both make use of employment facilities for teaching the manipulative aspects of the occupation Both have been used rather extensively in the industrial and business fields, particularly in the industrial

While the cooperative plan as originally developed more than 30 years ago has declined in popularity, its essential principles are so sound that in some form or other it seems certain to survive and expand in coming years. Apparently the diversified-occupations program is the most promising line of this development, especially in the smaller cities Rapid expansion of the diversified-occupations work at the very time when the older cooperative work was declining seems to justify this view A coordinator representing the school system of the community makes the necessary arrangements with employers, sees that the work to be done in employment provides good training opportunities, and usually teaches related subjects to these youth during one-half of the three hours daily that they are in school A group of 20 youth in this setup may represent nearly as many different occupations

The diversified-occupations program can often be coordinated advantageously with the all-day program, students passing from preparation for a "family" of occupations in the latter to preparation for a particular occupation in the former, immediately preceding full-time employment With the beginning of full-time employment, apprentice training is continued with the apprentice coming to the school, usually evenings, for 4 or more hours of instruction per week as described in the next paragraph

Supervised apprenticeship. This type of vocational preparation calls for a high degree of cooperation on the part of the public school system, employers, and workers. It is sponsored

jointly by the Federal Committee on Apprenticeship of the U S. Department of Labor and the U.S. Office of Education. Provision is made in the plan set up by these sponsoring agencies for a local joint apprenticeship committee consisting of equal numbers of employers and journeymen for each trade included in the local program A coordinator represents the school system in promoting and supervising the program and in providing related school instruction.

The local joint committee is expected to see that apprentices are regularly indentured for a definite period, that the ratio of apprentices to journeymen and other recognized labor standards are observed; and, in cooperation with the coordinator, that suitable work programs are set up for the apprentices in their places of employment. The apprentices are required to attend school classes related to the trade for at least 144 hours per year Usually these classes meet two evenings per week for 2 hours each evening The period of apprenticeship under this program varies from two to five years In the steam-fitters' trade national standards have been set up fixing a minimum age of sixteen years, providing for a five-year apprenticeship, and requiring high school or vocational school graduation, or twenty-one years of age and actual experience in the trade along with unusual qualifications, for entrance to the apprenticeship-training program

In some school systems the same coordinator is responsible for both the diversified-occupations program and the supervised-apprenticeship program.

Part-time schools. A type of vocational preparation conducted by public school systems which reaches a considerable number of youth after employment begins is found in the part-time school Aimed at helping young workers to make any needed adjustments to employment life as well as to provide them with training for particular jobs, part-time schools are classified by the U S. Office of Education as trade extension and general continuation, the latter serving youth whose occupations require little skill or technical knowledge In about one-half the states part-time schools are required by law The legal requirements differ in different states in regard to the population of the school district which must establish a part-time school, the number of hours per week that youth must attend (varying from four to eight hours), the age to which attendance is required (sixteen

years in some states, seventeen in others, and eighteen in others), conditions on which exemption from attendance is permitted, and in other respects

According to the U S. Office of Education, enrollments in general continuation part-time schools and classes declined from a high of 348,018 in 1928 to 141,215 in 1939. The reason for this seems to be that youth of this age group have found it increasingly difficult to obtain any kind of employment before reaching the age of exemption from compulsory attendance at part-time school, and so they remain in full-time school. As a result of so marked a decline in attendance there has been a disposition to assume that this type of vocational education will disappear This assumption does not seem justified Here, again, the principle involved is so sound that the general part-time school or class in some form must be expected to continue and probably to expand again as adjustments to changing conditions are made

However, such expansion as may occur will be due mainly to the attendance of older students, either because of extending the age limit for exemption from attendance or because the service performed appeals to employers and young workers alike as so worth while that many will attend voluntarily with their employers' approval. If the part-time school of the general continuation type should decline further, some other plan by which vocational preparation of similar kind can be obtained a few hours per week by young workers in lower level occupations along with their employment and during daylight hours will probably take its place. The shorter working week should make this possible

It is worthy of note that while enrollments in part-time general continuation schools were declining, as indicated above, enrollments in part-time trade extension schools increased from 85,920 in 1928 to 221,145 in 1939 Many who attend these schools do so voluntarily. For the most part the youth attending trade extension part-time classes are older than those in the general continuation classes and a larger proportion attend voluntarily. In some cases they are apprentices, whether indentured or not.

Evening schools and classes. Vocational preparation in evening classes conducted by the public schools is so generally recognized as desirable where conditions warrant its establish-

ment that little discussion of it is necessary here The principal purpose of this type of work is to supplement the daily experiences of adult workers and thus make them more proficient in the occupations in which they are already engaged. To some extent preparation for industrial occupations not yet entered is provided in evening schools. But the federal government, in disbursing money for evening classes in the industrial field, recognizes only trade extension work, or work supplementing daily employment There were 156,464 students enrolled in such federally aided classes in the United States during the year ending June 30, 1939. The same year there were 216,034 taking federally aided evening courses in home economics and 181,962 taking similar courses in agriculture For business occupations many city school systems offer in evening classes both preparation in advance of employment and further preparation after employment begins, but federal aid is not available for either, except in case of the distributive aspects of business education

In the smaller school systems, difficulties similar to those already discussed in considering preparation for industrial occupations in advance of employment are encountered in providing vocational education in evening classes Some of these difficulties might be overcome by extending the Benton Harbor plan of supervised correspondence study to evening school work.

Evening schools will no doubt continue to be an important means of providing vocational extension education for adult workers of all ages In performing this function they will add new courses from time to time to meet new needs arising from development of new industries, as has been done recently in air conditioning But the new legislation enacted from time to time affecting agriculture, industry, and business places new responsibilities on evening vocational schools For example, workers in industry need such opportunities as public evening schools can provide to study the provisions of the National Security Act, the National Labor Relations Act, the National Wages and Hours Act, and other national and state acts of similar character They need opportunities to discuss under competent, unprejudiced leadership the fundamentals of economics and industrial history

All these phases belong in industrial education just as truly as does trade extension training There is growing recognition of

the fact that industrial education is education for the life of an industrial worker and is, therefore, much broader than training in skills and technical knowledge. Agricultural education is fast becoming education for a way of life and not merely a means of making two blades of grass grow where one grew before The same must become true to a far larger extent than at present of commercial, home economics, and industrial education, not only in evening schools but also in all-day, part-time and every other type of vocational school.

Preparation on the job. Thus far attention has been given only to those types of vocational education which are carried on in connection with schools While plant schools have not been mentioned, what has been said applies to them as well as to public schools

It is a well-known fact, however, that an immense amount of vocational education takes place in employment without any time set aside for instructional purposes A foreman or a fellow worker helps the learner by means of a demonstration here or a suggestion there. The learner picks up other needed skill and knowledge by combining observation of the work of others with trial-and-error methods of his own. Some learn occupations involving considerable skill in this way Great numbers entering semiskilled and low-grade skilled occupations are now wholly dependent upon this method of learning their work While it must be expected that the all-day vocational schools, the diversified occupations program, the part-time classes, and the evening classes will meet this situation better in the future than they have in the past, a great deal of vocational education will continue to be obtained on the job

Many vocational educators insist that this is the employer's responsibility and that public schools should do nothing about it But these same educators insist that vocational education is a public responsibility; and this is vocational education Since, as was pointed out earlier, the public finally pays for vocational education however obtained, and since business and industry are not organized to do this educational job efficiently, we must expect public school systems, in cooperation with industrial, business, and labor leaders, to bring about more effective methods of training on the job. Perhaps the actual training will still remain with industry and business but, if so, society's educational

agency, the public school system, will help to make it more effective and more economical than at present. The training of foremen in the work of teaching new recruits is, to be sure, a beginning in this direction but much more needs to be done

Preparation for change of occupation. The necessity of providing preparation for change in employment has recently been forced upon public attention in a striking manner That technological unemployment, the development of new industries, and voluntary changes of occupation, to say nothing of dismissals on account of depression conditions or for other reasons, will make this a permanent problem cannot be doubted. Every year a large number of adult workers will be obliged to change occupations

More ample provision for industrial reeducation is necessary in order to meet the situation In some cases the change can be anticipated and the needed preparation obtained before leaving the old job In other cases the change comes suddenly and the worker finds himself in a new job for which supplemental training must be obtained In many cases a period, often a long period, of unemployment accompanies the change, and preparation can be obtained while the individual is unemployed

To meet the first of these conditions, industrial preparatory work, perhaps in new fields outside of working hours, will be needed To meet the second, trade extension courses such as have long been provided, but in new as well as old fields To meet the third, intensive, all-day industrial preparatory work. In all cases careful vocational counseling should precede choice of the new occupation for which preparation is made. With the shorter working week, Saturday forenoons may well take the place of evenings for a growing percentage of this work

Relation of economic and social trends to vocational preparation. From what has been said in this chapter it is quite obvious that vocational education leaders need constantly to be alert to the changes that are taking place in business and industry, and in social institutions generally, if the program of vocational preparation is to serve its purpose effectively. The trend toward entrance into occupational life at a later age has given rise to important questions affecting the all-day, part-time, and diversified-occupations programs

Technological unemployment is constantly bringing up new problems of vocational reeducation in order that those displaced may reenter employment life as advantageously as possible.

The trend toward breaking up a skilled occupation into a group of specialized occupations still continues, bringing with it the necessity for changes in content and methods of preparation and in some cases transferring the preparation from one type of vocational school or class to another.

The development of new industries based upon recent inventions calls for the organization of new courses in order that workers may be prepared for the occupations involved. The list of such inventions mentioned in 1937 by the National Resources Committee in its report on social planning includes: the mechanical cotton picker, air-conditioning equipment, plastics, the photoelectric cell, artificial cotton and woolen fibers made from cellulose, synthetic rubber, prefabricated houses, television, facsimile transmission, the automobile trailer, gasoline produced from coal, steep-flight aircraft, and tray agriculture If the probable effects of these inventions deserve study for purposes of social planning they certainly deserve attention in relation to their effects upon vocational education which is an essential part of social planning

Unless these and other trends are watched with care by educational leaders and necessary changes made promptly when the need for change is clear, vocational education will be, as it has often been in the past, preparation for occupations already outmoded instead of for work that lies ahead [1]

Vocational preparation an expanding service. The past two decades have seen an enormous expansion of vocational education

[1] The significance for vocational education of long-time trends in productive enterprise appears clearly in the following "From the building of the Pyramids down to the present day, the proportion of the world's work of the nature of mere physical digging, pushing, carrying, lifting, and hammering, by the exertion of muscular force, has almost continuously diminished. From the cutting of the canal at Corinth to the cutting of that at Panama, the share of the thinker, the architect, the designer, the draftsman, the engineer, the toolmaker, the accountant, and the clerk, in every productive enterprise has become steadily larger, and the proportion of workers so engaged has grown accordingly" SIDNEY WEBB and BEATRICE WEBB, "Labor," in *Whither Mankind*, edited by Charles A Beard, Chap V, p. 140, New York Longmans, Green & Company, 1928.

in America. Passage of the Smith-Hughes Act in 1917, providing federal aid for agricultural, homemaking, and industrial education of less than college grade, did much to stimulate this expansion. Additional federal appropriations authorized by the George-Deen Act of 1936 gave the movement further impetus. The flooding of high schools in recent years with youth who would be in full-time employment if conditions had remained as they were two or three decades ago has forced school authorities to give more attention to the needs of the 85 per cent of high school graduates who do not go to college.

The public generally is more ready today than at any time in the past to support an educational program rich in its vocational aspects for these youth. There is every reason to believe that vocational education will continue to expand, mainly along lines discussed above, and will take a larger place in programs of public education, as American youth remain longer in school and the demand for adult education becomes more insistent. It seems likely that this expanding vocational preparation will be broader than it has generally been in the past, that it will be concerned with the way of life of the industrial worker, the farmer, the business worker, and the homemaker as well as with proficiency in doing the things of particular occupations; and that social and economic aspects of the occupation or group of occupations to which the worker belongs will be given greater emphasis.

Summary

Vocational preparation is an essential part of the problem of transfer from school to occupational life, with which vocational guidance is concerned.

The public finally pays for vocational preparation, however it is provided. The public should, therefore, see that this preparation is provided efficiently and economically. Also, "equal educational opportunity for all" is an empty slogan unless the public assumes this responsibility. Industry is organized to do production jobs. Vocational preparation is an educational job. The interests of the two types of jobs often conflict to the disadvantage of the latter, when vocational preparation is provided wholly by the employer. The school system is the public's chosen agency set up for the purpose of doing educational jobs. From the point of view of the interests of society as a whole, of the

individual learner, and of the employer, the school system must carry the responsibility for vocational preparation. However, it is necessary that the school system work in cooperation with employers and organized workers in this matter Only through a continuing survey in which these three groups participate can the vocational education needs of a community be properly determined

Three general types of vocational education have developed in American secondary schools.

1 Preparation before employment begins
2 Preparation in connection with employment
3 Preparation for change of employment

All three of these are found under public school supervision in varying proportions in the fields of agriculture, business, homemaking, and industry. There is growing interest in training youth on the preemployment plan for a group or family of occupations before preparation for a specific occupation is begun. Supervised correspondence courses have been introduced in many high schools to supplement the training provided on the preemployment plan. Vocational preparation in connection with employment is provided for apprentices and others who work half-time, for apprentices and others who work full-time and attend evening classes, and for semiskilled and other workers who obtain their preparation wholly on the job. In recent years various plans of preparation for change of jobs have been set up to meet the needs of workers thrown out of employment by technological changes in industry

The trend toward entrance into employment at a later age, increased technological unemployment, the continued breaking up of skilled occupations into groups of specialties, the development of new industries based upon recent inventions, and other developments of a social and economic nature are constantly making readjustments in vocational education necessary. In order to meet changing conditions and because of growing popular interest stimulated by federal aid, vocational education seems destined to continue the expansion and the readjustment which have marked its recent history

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CHAPTER XV

THE PLACEMENT SERVICE

Objections to placement as a school function. Even among ardent supporters of vocational guidance, there are those who insist that the schools should not undertake to help young people find employment when they leave school It is argued that the knowledge a youth has obtained through the occupational information courses, exploratory experiences, and individual counseling should guard him against any serious mistakes in obtaining employment, that such mistakes as are made will soon be corrected by a change in employment, and that it is a mistake in the direction of too great paternalism to deprive the individual of the opportunity and necessity to exercise his own initiative and ingenuity in finding his own job.

It is insisted, also, that where the placement service is included in the school program it is extremely difficult to keep it from monopolizing attention and support that belongs to other aspects of vocational guidance. It is pointed out, moreover, that in most communities a youth seeking his first job now has access to the state employment service whose business is to find employment opportunities for young as well as older workers Why duplicate in the school system costly services for which other provision is made at public expense? Let the schools confine their attention, it is argued, to providing adequate assistance in choosing and preparing for vocations and leave placement to the agency whose business is job finding

Vocational guidance program incomplete without placement. In support of including placement in the school program of vocational guidance, whether done directly by the school system or in cooperation with the local office of the state employment service, it is maintained that the whole program is left in mid-air, unfinished, if provision for this service is not included, that getting off to a good start in the chosen occupation is quite as important as choosing it, and there is no more reason to expect the unaided

youth to do the one to the best advantage than the other. If left to his own devices he may find employment that gives him just the desired opportunity On the other hand, he may begin work in his chosen field under conditions that are very unfavorable to his future growth and advancement Or failing after repeated efforts to find the desired opportunity, he may take any job he can get regardless of its relationship to what he had hoped to do Or, in extremely dull times, he may even be unable to find any employment at all for many months, in which case his morale is almost sure to suffer serious impairment at the same time that the edge of his interest is dulled and the benefits of his preparation are lost Let the school system finish what it has begun and help the youth get off to a good start in the occupation which it helped him to choose and for which it provided him with a certain amount of preparation

School placement office in position to render a discriminating service. Certainly a well-managed school placement office for youth leaving school to enter employment will have available, or be in position to obtain, much more complete and reliable information concerning the different openings in a given occupation—where these openings are, their peculiar requirements, opportunities for promotion within the organization concerned, whether the management is interested in developing its young workers or merely in exploiting them, and the like—than an individual student can possibly obtain on his own account. On the other hand, such an office will have available through the counselors' records in the different schools much more complete information concerning the youth who have chosen to enter a particular occupation than employers could possibly obtain from any other source. It must be granted that bringing these two together is a service of great value to the prospective young worker and to the employer alike when performed in an honest and discriminating manner.

Student initiative not eliminated by placement. This service does not necessarily eliminate the exercise of initiative or ingenuity on the part of the individual seeking placement It does not, or should not, say to a boy: "Here is just the right job for you. Report tomorrow morning to Mr X and he will start you at work" Even if this were possible it would not be fair either to boy or to employer. In the first place the boy may ignore the

placement office altogether if he sees fit and find his own job In the second place, if he asks the aid of the placement office, as he should be encouraged to do, he will still have the responsibility of deciding whether he would like the particular position that the office brings to his attention and the further responsibility of applying for the position and convincing the employer that he is the best individual available for it.

Whether he learns of the position through his own efforts or through the placement office, the task of "selling" his services to the employer is still his and calls for initiative and ingenuity. The difference is in the ease with which he finds a promising market, the more complete knowledge in advance of what he may expect in the nature of opportunities if he makes the sale, and usually a more favorable initial attitude on the part of the prospective buyer It cannot be doubted that in many cases the youth is saved by the placement office from a discouraging and wasteful period of search which would have ended in acceptance of employment quite different from the occupation which he had chosen and for which he had prepared

Placement service aid to other vocational guidance activities. It is true that placement work tends to attract public attention more than other aspects of the guidance program. The very nature of its work requires that it attract attention. The school placement office is in a sense the sales organization for disposal of the school system's product, or for that part of it which does not go to higher institutions for further preparation. A sales organization that does not attract attention is a failure. Looking at the matter from another angle, a report of the placement office to the effect that 1,000 boys and girls who were leaving school were placed in positions last year is likely to prove more interesting to the average school-board member than a report that 5,000 counseling interviews were held with pupils in the same length of time

But a wise leader of the vocational guidance program and a wise superintendent of schools will make it clear that real success in these placements depends upon the quality of the occupational information courses, the tryout experiences, the individual counseling, and the vocational preparatory work done before the time of placement arrived; just as the success of a sales department is determined by the earlier work done in the factory There is no

good reason why placement work, even though more spectacular, should detract in any way from adequate support of other parts of the guidance program Indeed, quite the reverse should be true Successful placement work should attract attention and support to the entire program. Also, through the contacts of placement workers with industry and business, the prestige of the school system in the community should be increased and suggestions for improvement of its work as a whole obtained.

Advisability of leaving the placement service to public employment offices. With the development of the federal-state employment service[1] has come a tendency to expect local offices of this service to handle the placement of youth who are leaving school along with that of adults When this service was authorized by the Wagner-Peyser Act of 1933, it was contemplated that a national federation of state public employment offices would result, guided by federal standards and under federal supervision, but locally administered At the time this is written all the 48 states are operating employment services in cooperation with the federal government under this act. For example, Michigan maintains 1 state, 7 district, and 55 local free employment offices. Each local office is expected to serve a definite area surrounding the city in which it is located, the entire state thus being covered by the service In connection with administration of the National Security Act it is required that every claimant for unemployment compensation benefits register for work at his local employment office of the state employment service and report regularly to this office as proof of availability for work and of continued eligibility for unemployment benefit payments

Certain advantages of this setup are at once apparent. Assistance in obtaining a job is thus available, in theory at least, to every employable individual in the state, young as well as old It would seem that the adequacy of this assistance is reasonably well assured, since the office is financed jointly by federal and state funds and its work is under the supervision of both federal and state authorities. Since the same office is concerned with unemployment compensation, all in the area served who are

[1] Originally set up in the U S Department of Labor, the U S Employment Service was transferred July 1, 1939, to the new Federal Security Agency The name has since been changed to U S Bureau of Employment Security.

eligible for such compensation must register and maintain contacts with this office Thus young workers seeking reemployment are already familiar with the local office of the state employment service. On account of its necessary contacts with employers and the varied services it performs, no other agency in the area is likely to have such complete information concerning local employment opportunities and requirements

Then, too, a special youth-placement program, covering the ages seventeen to twenty-five, is encouraged by the U.S Bureau of Employment Security and is in process of development in many of the states. Several of the state employment service offices have appointed state supervisors of junior placement Also, special junior divisions have been set up in many of the local offices with a junior counselor or placement officer in charge.

For example, the Indiana State Employment Service, in addition to providing for the registration of youth in all of its offices, has established in six different cities a Junior Division under the direction of a Junior Division Counselor to place and follow up youth "who are not yet occupationally mature" In Michigan junior counselors have been placed in 54 offices of the state employment service for the purpose of giving special attention to the employment problems of young people sixteen to twenty-five years of age. It is an advantage to the youth seeking employment to have the help of an office that is coordinated with many other offices of the same kind in other parts of the state and in other states. If the local office does not have a suitable employment opportunity for the youth, possibly one of the others may.

On the other hand, the history of such work indicates that it is extremely difficult to keep public employment offices free of objectionable political influences. Also, concerned primarily with the employment problems of adults, these agencies have a tendency to neglect the needs of the young and to think of qualifications of an individual in terms of work experiences, which only a few of the younger group have had even in limited measure, though this tendency should be less pronounced in those offices which carry on a special placement program for youth. Actually, none of these offices is yet very effective in serving youth of its own area who live outside the city in which it is located, to say nothing of serving those who may be brought

to its attention by offices in other areas Finally, when a youth comes to an office of the state employment service for help in finding suitable employment it is quite likely that inadequate attention will be given to the mass of data gathered concerning his aptitudes, interests, achievements, and personality traits while in school With no administrative connection between the employment office and the school system, the tendency is for each to work independently of the other, notwithstanding commendable efforts at coordination of activities

With regard to these difficulties, however, it may be argued that bringing the employment-office personnel under civil service practically eliminates political influences and results in a qualified personnel; that the youth-placement program, with its own personnel and policies, will assure proper attention to the placement problems of youth as contrasted with those of adults; and that a cooperative arrangement between employment office and school system, already in effect in some cities, will make possible proper use of the valuable data brought together by the schools concerning their pupils

Even if it appears that in theory the advantages in vocational placement of youth lie with the state employment service offices over placement directly by the school systems that have educated these youth, in actual practice there is still a strong case for the latter plan. A school system which is concerned with the education of an individual for eight to twelve years accumulates a mass of information concerning that individual and an interest in him as a person, especially if a well-planned program of vocational guidance is in effect; a state employment office cannot possibly acquire such data in a few brief contacts Nor can this information and interest be passed on to any other agency by the schools without great loss It is far easier for the employment office to pass on to the schools the information that it gathers concerning employment opportunities or to cooperate with the schools in bringing this information together

Then, too, the values to the school system itself of carrying responsibility for helping its youth to enter employment life advantageously are very great. Members of the school system's own staff thus make daily contacts with industry and business They learn of weaknesses in the preparation for employment life provided by the school and bring back ideas and suggestions for

improvement of the curriculum and of teaching methods They bring to employers with whom they confer concerning placement of youth an understanding and appreciation of what the schools are doing to prepare youth for employment, often changing critics of the school system into loyal supporters. It will be unfortunate for school system and employers alike, particularly for the school system, if they find it necessary to deal with a middleman—the state employment office—instead of dealing directly each with the other.

In short, the state employment office in any community at best can do nothing for prospective young workers that cannot be done at least equally well by an efficient school placement office, while the latter, because it is part of the school system, can do much that is impossible to the former; and at the same time the school system itself is greatly benefited by doing this work.

Placement an educational service. Besides, and this is the kernel of the problem, the transfer of youth from school to occupational activities is an *educational service* and thus is a proper function of society's chosen educational agency, the school system This transfer must come to be looked upon as one step in the educational progress of the individual, just as transfer from one school to the next higher school is now considered such a step High schools recognize responsibility for helping the relatively small number of their graduates who plan to continue their education in college or other educational institution to select the institution, gain admission to it, and make the transfer as advantageously as possible It is time that school systems recognize a like responsibility to the much larger number who plan to continue their education by means of work experiences; for the first few years of employment life make immensely important contributions to the education of any individual Thus, helping an individual to get off to a good start in employment life is really helping him to find a good opportunity for his continued development or education, that education to which the schools have been making their contribution for several years.

Relationship of the federal-state employment service to placement of youth. While the school systems of several cities in the United States have maintained for years more or less effective placement services for youth, it must be granted that,

as far as the needs of the country as a whole are concerned, little more than a beginning has been made. Responsibility for action rests with local school authorities, which move slowly in developing new services, especially when handicapped financially as they have been for more than a decade. In the meantime the U S Bureau of Employment Security and state employment services with their aggressive national and state leadership, reasonably ample funds, and an organization that expects to reach down into every community, have launched a youth-placement program. In view of these conditions what relationship between these two interested agencies seems desirable?

In the judgment of the author, authorities who are responsible for developing the policies of the federal-state employment service should recognize that placement of youth to twenty-one years of age, and possibly older, is an educational service Up to this age their youth-placement program would be wholly one of cooperation with the schools to the end that this educational service may be performed effectively This cooperation would include supplying the schools with information concerning employment opportunities and requirements in occupations; developing vocational proficiency tests and maintaining a test service in this field for school students and young workers as well as for adults, experimenting with tests and other measures of aptitudes, interests, and personality traits, and informing school placement offices of the results, and other activities of similar nature. They should also subsidize school placement programs, as they have already done in some places on an experimental basis. In Philadelphia, for example, instead of setting up a new placement office for youth, the state employment office of that city helped to finance more adequately the placement work which had been carried on for many years by the city school system

When the fixed age in the life of the individual is reached, the local office of the state employment service would then take over full responsibility for placement The school system would now become the cooperating agency and would furnish such records, reports, and other information concerning individuals as might be helpful, keep the state employment office informed concerning evening courses and other educational opportunities available, and organize new special courses and other educational services that might be required.

It is obvious that, whatever arrangements are made for placing youth in employment, there must be a high degree of cooperation between the schools and the public employment offices [1]

Placement office activities.—Enough has been said already to give an idea of the general nature of the placement service which should be incorporated in a comprehensive program of vocational guidance and adjustment However, a more systematic and detailed consideration of this service is desirable What is involved in it? What are the steps through which the process of placement advances from the time it is decided that a student is to leave school until he is working successfully and with favorable outlook in an occupation for which he is suited?

The phrasing of the last question, as well as the discussion found in the pages immediately preceding, indicates that placement is not merely finding jobs for boys and girls who are leaving school It is a much more complicated and discriminating piece of work than that It may well include conferences between the student who is leaving and his counselor, a report concerning the student from counselor to placement worker, one or more interviews by the placement worker with the student during which registration is completed, a call on the prospective employer by the student, reports from the student to the placement office,

[1] The American Youth Commission published in 1940 a report on a study of the plans followed in Providence where the placement of youth is centralized in the schools with financial assistance provided by the state employment service, in St Louis where this service is centralized in the local employment office of the state employment service, the schools and the National Youth Administration cooperating; and in Baltimore where both the state employment service and the local school system provide placement services Dallas and rural areas adjacent to Baltimore and St Louis also were included in the project The general conclusion reached was that

"In the end, constructive results come not so much from insistence on any one plan of organization as from such universally essential things as competent professional leadership, recognition of the need for cooperation under any system, and sympathetic public support"—Floyd W Reeves, "After the Youth Surveys—What?" *Occupations The Vocational Guidance Magazine*, XVIII (January, 1940), 247

This conclusion leaves unanswered the important question · Which type of organization is *most favorable* to obtaining the desired "competent professional leadership, recognition of the need for cooperation under any system, and sympathetic public support"? Nor does it recognize the placement of youth as an educational service, nor take account of the advantages which the school system itself derives from performing the placement service

reports from the employer to the placement office, reports from placement office to the school counselor, additional placements if necessary, and additional conferences between the counselor and former student if desired by the latter.

The counselor's interview with student needing placement. The counselor's guidance interviews with students during previous years, discussed in a previous chapter, should make it the natural thing for a student to seek the counselor's advice as soon as leaving school to go to work becomes imminent In addition, any teacher in the school who learns that a student is planning to leave for employment should report this information at once to the counselor. Further, it might be understood throughout the school that no student can leave in good standing for the purpose of going to work without first having an interview with the counselor In this interview, whether voluntary on the pupil's part or brought about through the initiative of the counselor, the possibility of finding employment in a relatively short time in the occupation of the student's choice and the other possibility of having first to spend many months at some other work will be discussed.

The age of the student, the nature of the chosen occupation, and the general employment conditions of the time will all have a bearing on this discussion Whether the student must have work of some kind at once or whether he can wait a few days or even weeks in order to obtain the kind of position he wants will be taken into account, as well as the data on the student's record card and self-analysis form Any employment plans that the student may have already or that his parents may have for him will be considered The counselor will discuss all these matters in the light of the information which he possesses as to employment opportunities for youth such as the one before him.

After talking over with his parents the points discussed in this interview, the student should return to the counselor for another interview, and perhaps for more than one. Out of these conferences with the counselor, the student should come with a pretty definite idea of the kind of job he would like and has a right to expect and the relation of this job to his chosen occupation He should be aware that he may have to work for some time at a less desirable job before finding the employment opportunity that he seeks, and he should have some plan for using this

period in such manner as to fit himself better for the desired opportunity Also, he should be urged to remain in school until a position is secured and to return to the counselor some time after employment begins in order to talk over further preparation and plans for advancement in his work If the student wishes to make use of the placement office, which he should be encouraged to do, he is now ready to be sent there by the counselor

Information needed by the placement office. Before the placement worker sees the student, he should have received the counselor's report giving the student's name, address, telephone number, age, grade, nationality, occupations of parents, intelligence rating, health record, school record, choice of occupation, moral and social qualities insofar as these have been recorded, evidence as to emotional stability, suggestions as to the general character of the first job desirable, and such other data as the vocational guidance department may have agreed upon as important for this occasion If it is preferable, certain of this information may be furnished by the student as he fills out a registration card upon his first appearance at the placement office

Of course, the placement office will have at hand information concerning available jobs. This office will have built up such relationships with many employers of young workers that when an opening for this kind of worker occurs a request will be sent immediately to the placement office, describing the position and the type of worker needed With a few employers there will be an arrangement for the placement office to let them know whenever a promising youth interested in their line of work is seeking employment. The number of employers of these two types will gradually increase as the work of the placement office becomes more efficient and better known. The office will develop a system for finding out about other openings, making use for this purpose of those it has placed, communicating by telephone or letter with places likely to need young workers, and conducting employment opportunity surveys from time to time In all of this work the cooperation of the state employment service will be sought. Naturally, the office will have on file as complete information as it can obtain concerning desirable and undesirable features of each position, and a list of the qualifications required.

Placement worker's interview with student. The interview between placement worker and student should serve several

purposes. In the first place it should aid this worker in deciding upon the positions for which he is willing to recommend the student, though the counselor's report will be given the greatest weight in this matter. In the second place it should help him in making his recommendation definite In the third place it should give the student opportunity to learn about and weigh the merits of positions suggested by the placement worker In the fourth place it should aid the student in making his application to the prospective employer as effective as possible by calling the student's attention to defects of dress, manner, and personal appearance that should be corrected and by suggesting a good method of procedure in applying for the position he seeks, in order that he may make a good first impression.

Even a little training in how to apply for a job often proves a deciding factor in favor of the applicant. While discussion of things to be observed in applying for a position would undoubtedly have taken place in the vocational information class, it is nevertheless a good plan for the placement worker to bring these matters to the youth's attention just before he starts out to make the application

At the close of the interview, the placement worker will either send the youth to apply for a job, giving him a letter of introduction to the prospective employer, or tell him that he will be notified as soon as the placement office learns of a suitable opening Of course, the placement worker *will take account of the job's money value, its value in training the young worker, and its value in establishing a work history,* and weigh these in relation to the abilities and needs of the individual in proposing jobs for which application is to be made

Reports concerning placement. It goes without saying that the student will be expected to report back to the placement office whether he was employed and, if so, the wages he receives and the nature of the work he does It is to be expected, also, that the employer will send in a similar report As a matter of fact, however, the placement office will often find it necessary to obtain this information by telephone or by a visit to the place of employment, even though the young applicant carries with him when he makes application an addressed postal card form for such a report or a duplicate form, one part to be filled out and returned by himself and the other part by his employer

The report from the placement office to the counselor after the student is placed would give a brief summary of the case, indicating whether it was necessary to recommend him to more than one employer, stating the character of the work the youth is doing and the name of his employer, and suggesting any special training the young worker should obtain in order to fit himself better for his work or to prepare for promotion. This information would then be available for use if the youth, as he was urged to do, should come back for one or more later interviews with the counselor

Primary concern of placement office the interests of youth. It has been suggested that a placement office will gain the cooperation and support of employers of youth if it consistently performs a discriminating service This implies careful study of the needs of employers before recommending young workers Genuine effort to meet the needs and even the idiosyncrasies of employers is necessary if a desirable relationship with them is to prevail However, a placement worker will make a serious mistake if he considers his obligations to employers above those to the youth who seek his help His first obligation is to the latter Whatever else happens he must give his best service to aiding each youth to get off to a good start in employment life Usually he will find that in doing this he is best serving employers also But if a conflict arises between the interests of these two there can be no question that his decision should be in favor of youth Even if such a decision brings temporary embarrassment it will win approval and support ultimately.

Central placement office best. Running through all this discussion has been the assumption that there will be a single central placement office for the entire school system. In some cities, placement work has been carried on for years to a greater or less extent by one or more of the high schools Where this has been the case the tendency is, when a comprehensive guidance program is undertaken, either to extend this plan to all the high and vocational schools or to allow it to continue in those where it already exists, notwithstanding the establishment of a central office for placement purposes.

A single central office in charge of all placement work of the school system will be found to have many advantages over either of these other arrangements. Perhaps the most important of

these advantages will be better cooperation from employers If the average employer learns that he can draw upon the available supply of young labor from the entire school system by calling a single office on the telephone, he is much more likely to do this than if he knows his call will bring him only such service as one school can give. He will be more ready to submit reports and assist in other ways if he is dealing with one office rather than with several

The central office likewise opens up to each pupil who is leaving school the employment opportunities in his field afforded by the entire city Good administrative policy also demands a central office for placement work It is argued that the central office cannot possibly have that intimate knowledge of the pupil's characteristics and qualifications which is obtained by the counselor and that, therefore, central office placement is likely to become a card-catalogue, mechanical sort of thing. This difficulty can be overcome, or largely so, if there is cordial cooperation between central office and counselors in carrying on the placement work. As one placement officer aptly expresses it, "Counseling becomes practical and placement becomes educational in direct proportion to the extent of cooperation between the counselor and the placement officer" Of course, in the small school system the two functions will be performed by the same individual

Placement a problem of large proportions. When it is recalled that nearly 2 million boys and girls and young men and women leave our schools and colleges annually seeking opportunities in wage-earning occupations, the enormous proportions of the placement problem are apparent The difficulties of the problem are intensified by the fact that the great majority of these youth need placement help within a period of a few weeks at the end of the school year Then a veritable flood of graduates and others pour from the schools eager for employment Of the 2 million, a great many, of course, will find their own positions; but the number who will wish to avail themselves of the placement service of the schools will be very large, especially in cities of 50,000 or more population Would not the cost of maintaining the needed placement machinery at ordinary times be prohibitive? And would not this machinery be utterly swamped with work at the end of each school year?

School superintendents and boards of education have a way of finding money for things which they are convinced should be done School placement work, if well done, is so obviously worth while that there need be no fear for its financial support, once those in authority are brought to realize its possibilities The danger, as noted earlier, is rather that it will get more than its share of the money apportioned to vocational guidance Several city school systems are now financing fairly adequate placement offices, and will put more money into this work as developments justify it Besides, as noted earlier, it is to be hoped that financial assistance for this work will come from federal and state funds through the state employment service.

Load of placement work unevenly distributed. In some respects it is unfortunate that so large a part of the annual supply of young labor becomes available at one time; namely, at the close of the school year The situation has been much improved by semiannual promotions which cause a considerable number of graduates and others to leave in midwinter, but this still leaves placement work congested at two comparatively brief periods instead of distributed fairly evenly throughout the year.

Possibly it may be found desirable to organize reservoir classes for those young people who are awaiting employment after graduation, providing them with special instruction in preparation for wage earning. Part of the instruction might be vocational and part civic and economic in character. These classes could then be drawn upon through the placement office to recruit the supply of young workers as needed in the community Such an arrangement is not very different from what Boston school authorities did several years ago when they required continuation-school children temporarily out of employment to spend 20 hours per week in the continuation school. In some high schools graduates now are encouraged to remain in school for post-graduate work until they are placed.

Even better than any of these arrangements would be the Adjustment Institute discussed in the next chapter. However, at present the best the average placement office can do when it becomes swamped with prospective young workers once or twice a year is to place advantageously as many as possible, place others in temporary positions with the understanding that they will be helped later to obtain the kind of work they should have,

and make others wait until opportunities for their employment are more favorable. Fairness and a knowledge of home conditions are necessary in determining what to do in each case. If anyone objects or becomes impatient, he is at liberty to seek employment for himself. Even though the work which a placement office can do in these periods of stress is far from satisfactory, nevertheless it should be far more successful than the efforts of the majority of those who attempt to find employment without availing themselves of placement aid.

Relation of placement to counseling. In some cities, the placement office does a large amount of vocational counseling in connection with its placement work. Usually this is due to the fact that other parts of the vocational guidance program are not well developed in the school system. In a comprehensive program of vocational guidance it is well to keep the vocational counseling function and the placement function fairly distinct

It is, to be sure, part of the work of the placement worker to counsel the applicant concerning specific employment opportunities as they relate to his choice of occupation and his personality. It is inevitable that at times some discussion will take place between the two as to the suitability of the choice of occupation, particularly in connection with second and later placements. But the placement worker should recognize always that his job deals primarily with *advantageous entry* of the youth into an occupation already chosen. It is the duty of the school from which the youth comes to help him make the choice.

The school which has him under its supervision 6 hours a day for several years, which directs his study of occupations, which provides him with tryout experiences, which has a counselor to gather and study data concerning his physical, mental, social, and temperamental characteristics and to help him interpret occupational information and tryout experiences in relation to his personal qualities and limitations, is much more able to do this than is a placement worker who sees him for a few minutes on one or two or even half a dozen occasions. On this account it is usually better for the placement worker to send back to the counselor from whom he came any youth whose choice of occupation seems unsuitable, whether this is discovered at the time of the first interview or in connection with a second, third, or even later placement In every case of this sort the placement

worker should send the counselor a statement of his reasons for coming to the conclusion that the choice is unsuitable, especially any information from the youth's employers which bears on the subject.

Summary

A vocational guidance program is incomplete—unfinished—if it does not include a placement service. Entering occupational life advantageously, getting off to a good start, is quite as important as choosing and preparing for a suitable occupation. The placement office of a school system helps youth to sell their services in a favorable market. Well administered, it strengthens the rest of the program and builds up the prestige of the schools in the community.

The federal-state employment service is assuming the task of placing youth as well as adults. Better financed than school placement offices, closer to employment, and possessing an integrated organization that covers the entire country, this service has certain advantages. On the other hand, school people know the youth of the community, are trained to work with youth, are unhampered by political considerations, and can more easily obtain any needed additional information concerning employment opportunities than they can pass on to public employment offices the needed information concerning the youth of the community. Besides, transfer from school to occupational activities is essentially an *educational service*, concerned with making sure that youth are so placed that their development, carried on for years in the schools, is continued in the early years of employment life. Better results for youth, for the schools, and for society seem assured if placement of youth to twenty-one years of age, perhaps to twenty-five, is recognized as a function of the school system with financial and other assistance from the federal-state employment service. Cordial cooperation between these two agencies is necessary, however the job is done.

Placement is not mere job finding. It is a complicated and discriminating undertaking. It involves conferences between the youth and his school counselor, a report by the counselor to the placement office, interviews by the placement worker with the youth, calls by the youth on prospective employers, reports from the youth and the prospective employer to the placement

office, reports from placement office to counselor, additional placements and additional conferences and reports if necessary or desirable All these activities call for careful planning and well-considered techniques. Often special training in how to apply for a job, even a particular job, is required In all of this the interests of youth are paramount but the interests of employers demand consideration also.

One central placement office for the school system better opens employment opportunities of the entire city to youth and is more convenient for employers. Placement of youth as they leave school, a task of large proportions, is unevenly distributed during the year. Efforts to spread the work more evenly have met with only moderate success The Adjustment Institute described in the next chapter should be helpful in this task The placement worker does some counseling but with reference to the individual youth's fitness for a particular job rather than concerning choice of an occupation. If a change in choice of occupation seems desirable for a youth seeking placement, that youth's school counselor may well be called upon for assistance

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CHAPTER XVI

THE FOLLOW-UP OR ADJUSTMENT SERVICE

Important as an efficient placement service is in helping youth get off to a good start in occupational life, it is quite apparent that further assistance is needed in making adjustments and taking advantage of opportunities in the months that follow induction into employment. This further assistance has been called the follow-up or adjustment service.

Determining adjustment needs. If a service of this kind is to function in a comprehensive and genuinely helpful manner some systematic procedure for ascertaining the needs of young workers is necessary. It cannot be taken for granted that each one who has been placed will discover these needs for himself and come back uninvited to the placement office for assistance in meeting them To be sure, in case the need is for a new job, he probably will come back if the placement office served him well in the first place But the young worker has many other needs, as will be seen more clearly later. He may be painfully conscious of some of these, dimly conscious of others, and wholly unconscious of others. And, naturally, the needs will differ and the consciousness of them on the part of different individuals

Reference was made in the previous chapter to reports to be filed with the placement office by the youth and by the employer immediately after employment begins. Another report from the youth at the end of the first month covering a description of his duties, further preparation needed for the work, how he gets on with his boss and with his fellow workers, agreeable and disagreeable features of the job, and how he uses his leisure time would be one valuable means of arriving at the youth's adjustment needs. Similar reports after four months, one year, and possibly two years would be helpful. Of course, reports from the employer covering such matters as the adequacy of the young worker's preparation, specific further preparation needed, his attitudes, his relations with fellow workers, and opportunities that lie ahead would be of great value.

Another method of arriving at the adjustment needs of young workers involves calls at their places of employment by representatives of the school system for the purpose of observing their work and making brief inquiries of their foremen or supervisors. Many placement offices depend largely and some wholly on telephone calls in obtaining the desired information. Valuable as telephone calls may be in the follow-up service, they alone cannot possibly take the place of the more carefully considered written reports and the personal calls just mentioned. And, to be sure, an important means of determining needs of young workers will always be the personal calls they themselves make at the offices of their former vocational counselors and other members of the school system's staff. If proper arrangements for such calls are made many employed youth will take advantage of them. Fitch reports one placement secretary attached to a large vocational school who never places a graduate in the first job without inducing him to agree that he will not quit of his own accord without first consulting her.[1]

At once objections are raised to the difficulties and the expense encountered in obtaining this needed information It is argued that neither the young worker nor the employer will take the trouble to file written reports, even though forms for the purpose and return postage are provided; and calls at places of employment by representatives of the placement office are out of the question because of the expense to the school system and the inconvenience to employers

A company manufacturing automobiles finds it not only possible but profitable to spend a large sum of money each year in providing free service for a time on every car it turns out After driving a new car 1,000 miles the purchaser is asked to bring it in for a free inspection and to report any defects that he has discovered He is expected to do the same thing again when the car has completed 2,000 miles. Any defective parts discovered or any adjustments needed within the first three months or 4,000 miles (whichever is reached first) are cared for by the manufacturer without charge to the purchaser In other words, automobile companies consider it good business to make ample provisions for following up their product, as well as for producing

[1] JOHN A FITCH, *Vocational Guidance in Action*, p. 143, New York Columbia University Press, 1935

and selling (or placing) it They are so much concerned about how their product performs and how it pleases their public that they are willing to spend freely on this follow-up service

Surely youth deserve as much consideration on the part of the social institution which prepares them to function in an adult society, especially when it is realized that the first few years of this functioning really contribute enormously to the very process of education which the schools have been fostering in these same youth Ultimately the schools must be expected to go to great pains and expense in order to perform a comprehensive follow-up service for their product This service will no doubt concern itself with other aspects of life as well as with vocational adjustments.

It is not enough, however, to depend wholly on formal reports from young workers and their employers, on telephone and personal calls on employers by representatives of the school system, and on calls at counselors' offices by the young people concerned, valuable as these may be. A former principal, vocational counselor, home-room teacher, subject teacher, or athletic coach may pick up in chance or planned conversation with a young worker information concerning his occupational adjustment problems that is very significant Certainly much more can be done than is done at present in bringing together for study and analysis such information of this nature as is gathered by various members of the school staff Every member of the staff might well feel obligated both to be on the alert for such information and to file it in written form with the youth's former vocational counselor And similar information gathered in like manner from employers of these former students will prove of great value also.

Fundamental to the effective working of any follow-up procedure in determining the needs of young workers is an entire program of vocational guidance that wins and holds their confidence and cooperation by means of valuable services rendered A youth who is convinced that he has been helped in choosing a suitable vocation, in making needed preparation for it, and in obtaining his first position is much more ready to send in reports or make them in person when requested to do so than is one who considers that he benefited little from these earlier services of the program.

In like manner, an employer who is pleased with the young workers who have come to him through the placement service and who has been called upon to supply the schools with occupational information or to help in working out a vocational education program for his industry is much more ready to report concerning the young workers in his employ than is the employer whose relations with the school system have left him with an unfavorable impression of that institution Whatever procedure is used in determining follow-up needs must be based on other vocational guidance services that are really functioning

The need in connection with a second or later placement. As suggested earlier, the one need which is most likely to bring a young worker back to the placement office is that for help in finding a new job But beneath this immediate need is that for assistance in analyzing the situation in which he finds himself. Why is he out of a job? Did he quit voluntarily because he disliked the work? While the work itself was satisfactory, did the working conditions cause him to decide on a change? Did his employer discharge him? If so, was it because of inefficiency, wrong attitudes, general reduction of the working force? Did the employer fail in business? Is a labor strike responsible? In the light of the reason for his unemployment and of his work experience, will it be easier or harder to get a new job? Should he try for a new job in the same occupation or in a new one? The kind of assistance that a youth receives in this critical experience may affect favorably or unfavorably his entire working life Of course, he should understand, before assistance is given him in finding a new job, that the reasons for his leaving the former one have been investigated carefully from his employer's point of view as well as from his own and have been entered upon his record in the placement office

Need for help in leaving a job that is no longer desirable. As has been pointed out, it is quite as true that some young workers remain in jobs longer than they should as it is that many shift from one job to another when they should not. The former are just as much in need of help as the latter in meeting a situation that may have great significance for them Fear of change, unwillingness to take a chance, and especially ignorance of how to proceed in seeking opportunities for advancement often condemn a capable individual to a level of achievement much below

his possibilities Sometimes the best opportunity is to be found in the very organization that already employs this young worker A placement office can do much to remedy this situation by providing an opportunity for individuals of this type to review from time to time with a specialist their occupational problems, and by keeping them aware of the assistance afforded by the vocational guidance program of the school system in obtaining a position better suited to their abilities.

Need for help in removing causes of dissatisfaction. Not infrequently a young worker who is getting on reasonably well, is satisfactory to his employer, and should remain where he is, develops a real or imaginary grievance which interferes with his usefulness and threatens to result in a change to a less desirable job A machinist's apprentice in New York who had been called to account for some mistake decided that his foreman "had it in for him" and that the best thing for him to do was to find another job as soon as possible. Another machinist's apprentice discovered that a young worker near him doing piecework was earning twice as much as he, and immediately decided that he would give up his apprenticeship and change to piecework Fortunately both of these youths were persuaded by friendly coordinators from the schools that their reasons for proposing to give up their opportunities to learn a highly skilled trade were trivial. Whatever the cause of dissatisfaction, the kind of follow-up service which helps the young worker to see the situation as it really is and to face it squarely often measures the difference between success and failure for that young worker

Need for additional vocational preparation. Every young worker on a new job, regardless of his vocational preparation before leaving school, has much to learn concerning his work and his new relationships In some cases this is learned entirely in the place of employment, in other cases, partly in the place of employment and partly elsewhere. Of course, both the amount and the nature of the new skills and knowledge required depend on the kind of work done, being much greater for a machinist's apprentice or a stenographer than for a punch-press operator or a file clerk

Many young workers are very slow in discovering just what they need to learn and still slower in finding quick and economical ways of learning it They need help to see their learning needs

and the opportunities that lie around them, both in connection with their employment and outside of it, for meeting these needs What evening courses and correspondence courses pertaining to the work are available, what readings and what conferences with individuals are desirable; what habits of observation and of work and what attitudes should be cultivated in order better to meet present and probable future requirements of the job are questions which they need help in answering They also need encouragement to take advantage of the various opportunities at hand for self-improvement in the field of their vocations

Need for help in planning cultural, recreational, and community-service activities. Not only are these youth beginning their duties and responsibilities as workers. They are beginning also to assume their places in society as citizens As they leave full-time school, profound changes are taking place in the manner and extent of their use of the provisions available for their cultural, social, and civic development They are modifying the recreational habits of their schools days on account of the requirements of their work. Habits of participation in community-service activities become fixed—crystallize—more in the first few years of employment than at any other period in the individual's life A new set of personal relations problems demand attention. Adjustments of vital significance to the young worker's satisfactions in life and to his value as a member of society in his community must be made Many of these adjustments are closely related to his vocational success A wise follow-up at this time by the same social institution that society has charged with responsibility for helping to prepare him in advance for this situation is immeasurably valuable both to the youth and to society, and, as was noted in case of the placement service, to the school system also

Need in case of prolonged unemployment. If the youth in his early years of employment has need of such follow-up services as have just been discussed, certainly the one who has been seeking work for weeks or months without success is in even greater need, whether he has held a job for a time or whether he has had no work since leaving school The greatest tragedy of a prolonged period of economic depression is its crop of unemployed youth. In such periods the obligation rests more heavily on the school system to look after its former students if their morale

is to be preserved and they are to become permanent social assets rather than social liabilities

The Civilian Conservation Corps as a factor in meeting the needs of unemployed youth. It was for part of this group that the Civilian Conservation Corps was organized by the federal government in 1933 The camps of this corps, each accommodating on the average about 200 young men from seventeen to twenty-three years of age (the typical enrollee was 18 5 years of age in 1938), are scattered throughout the different states and provide for approximately 300,000 youth at one time With their favorable living conditions, work program, and expanding educational facilities, these camps have undoubtedly been of great value to those enrolled

Vocational classes are carried on in each camp for enrollees who wish to attend, under the leadership of an educational adviser who, in many camps, provides also a limited though expanding vocational guidance service Better health, better morale, and some vocational preparation have resulted However, these camps are open only to boys and young men; no corresponding provision is made for girls and young women The number who can be accommodated is only a fraction of the total number of unemployed youth, estimated by the American Youth Commission in 1936 as 5½ million and in 1939 as nearly 4 million between the ages of sixteen and twenty-four inclusive The educational program provided, valuable as it has proved to be, is meager compared with the needs of the group The period of enrollment is six months with the privilege of renewal for three additional periods of six months each However, each reenrollment bars a new youth from coming into the Civilian Conservation Corps, since the total membership is fixed by law When the period of enrollment is over, most of these youth, who have been taken out of their natural environment for a time, return to the conditions from which they came, including usually unemployment

The entire program is controlled and managed from Washington, with the result that the communities from which these youth come tend more and more to unload their responsibilities for meeting the needs of their own young people on the federal government. Fundamentally the problem with which this chapter is concerned is a local educational and guidance problem, while that of the C C.C. started out as one of human relief and

conservation of forest resources. It is not to be expected that a partial solution of the latter problem will solve or even make a large contribution toward solving the former Even with steadily increasing emphasis on the educational and guidance services of C C C. camps and lessened emphasis on their relief character, this valuable organization cannot be expected to take the place of local communities in serving the needs of unemployed youth.

The National Youth Administration as a factor. Another organization which has done much valuable work with unemployed youth is the National Youth Administration In 1935, in accordance with an executive order issued by President Roosevelt, the National Youth Administration took over the Federal Emergency Relief Administration's program of aid for needy college students, started the previous year, and extended it downward to include students in secondary schools and upward to include graduate students in universities By means of this aid, amounting to not more than $6 per month for high school students, $20 per month for college students, and $40 per month for graduate students, many thousands of youth, sixteen to twenty-four years of age, have continued their education In return for this aid, students work at tasks varying according to their knowledge and skills, mostly in connection with the educational institutions which they attend

For unemployed youth, eighteen to twenty-four years of age inclusive, who are no longer in school, N Y A. part-time work projects are carried on which do not compete with adult labor and which give these young people a small income. In addition the National Youth Administration in some communities has provided junior counseling and placement services in connection with state employment offices in an effort to help these youth find jobs in private industry [1]

Hayes has pointed out that a personnel card has been developed for out-of-school youth applying for N.Y A. work; the work projects provide limited tryout experiences, in certain of the large industrial states occupational information material has been prepared and late afternoon and evening classes for study and discussion of this material established for unemployed youth; and in some centers consultation services of vocational counseling

[1] Richard R Brown, "The NYA and the Youth Problem," *Occupations· The Vocational Guidance Magazine*, XIV (May, 1936), 776–780.

type have been set up by the N.Y.A. for these youth [1] Also, a number of residence centers have been established in which a combined program of part-time work and part-time vocational education is provided for groups of N Y A youth.

This program provides for both sexes, serves youth for the most part in their home-community environments, and, in some localities, undertakes to provide a comprehensive vocational guidance service While directed from Washington, it has also a staff in each state which seeks the cooperation of state and local educational authorities In the student-aid part of the program the local educational institution is allowed freedom in selection of students and types of work in which they engage

However, this is primarily a relief program Students who receive aid must show that they could not continue their education without aid. Those employed on N Y A work projects are "Needy young men and women between the ages of 18 and 24, inclusive, who are out of school and unemployed," according to a statement issued by the National Youth Administration in 1940 An earlier requirement was that at least 90 per cent of these youth must come from families on relief Some of the best features of the program are found only in a few communities and on an experimental basis Only a fraction of unemployed youth are receiving through the N Y A follow-up service that even approaches adequacy [2] As with the C.C.C, the entire setup tends to cause local educational authorities to shift to the broad shoulders of Uncle Sam responsibility for following up these youth instead of recognizing this as a responsibility of the local school system, concerned directly with the continued education of its former students

No coordinated program. It is apparent that there is no coordinated program aimed at following up and helping unemployed youth and no agency which feels responsibility for bringing about such a program. The high schools look upon these youth as beyond their jurisdiction. The C C C. serves certain of the needs of a small part of this group for a time but finally sends these back, for the most part still unemployed, to the com-

[1] MARY H S. HAYES, "NYA Youth Placement," *Occupations. The Vocational Guidance Magazine*, XVI (May, 1938), 737–738

[2] The N Y.A reports that, as of May, 1938, 326,664 young people were receiving student aid and 179,367 were on work projects

munities from which they came. The N Y A. saves some of the abler and more ambitious ones from joining the unemployed by its student aid program and helps a few of the unemployed with its work projects and with vocational guidance The junior placement service of the state employment offices offers assistance in finding such jobs as are available Interested local social agencies make contributions of some value to the problem But all these organizations and agencies are working almost entirely independently of each other The result is that great numbers of these youth receive little or no help and others receive help in meeting only part of the difficulties that perplex them.

A new type of local educational institution needed—an Adjustment Institute. In reply to the criticisms voiced concerning the limited service of the C C C and the N Y.A , it can be said that local school systems of this country are doing far less in the way of providing an adequate follow-up service for unemployed youth than either of these federal agencies, and that these organizations have done a great service in focusing attention on the problem and in taking steps toward its solution. No doubt this is true as far as the unemployed group is concerned, but neither of these agencies does any follow-up work with those who are employed from the time they leave school or with those who enter higher educational institutions, except that the N.Y A provides financial aid for some needy students.

As a matter of fact, school systems as now organized cannot be expected to do effective follow-up work with any of these groups. A new educational institution, very different from the junior or senior high school or junior college, and designed for a much broader service than is performed by placement offices—a sort of Adjustment Institute—is needed, into which all youth are transferred when they leave secondary school just as they are now transferred from junior to senior high school

The business of this new institution would be to help each youth make the adjustments that are essential to his continued development during the first few years after leaving secondary school Some youth would flow out from this institution almost immediately into employment and others into colleges or other educational institutions Some would remain for months or even years full-time members of the Adjustment Institute, because of inability to obtain employment or to enter college Others might

go out for a few months into C C C camps, or into part-time private employment But whichever of these various courses was pursued by an individual, he would still be considered a member of the Adjustment Institute until he reaches twenty-one (perhaps twenty-five) years of age He would be expected to look to this institution for any kind of help needed in meeting new situations or in making better adjustments to old ones. And the institution would be expected to help him to discover these needs as well as to meet them

Services of the Adjustment Institute to those entering employment. The first service of the institute to this group would be that of assisting them to find suitable employment In other words, the placement office, whose work was discussed in Chap XV, would constitute an important part of the institute and the entire placement service of the school system would center here Of course, this office would concern itself with second and later placements as these became necessary The institute would concern itself also with those who tend to remain longer than they should in positions which do not afford opportunities commensurate with their abilities

The need of each employed member of the institute for help in connection with his vocational, recreational, cultural, and community-service activities—the entire range of follow-up services for the employed described earlier in this chapter—would claim the attention of the institute A broad program of part-time and evening classes would be necessary, as would also provision for counseling concerning correspondence courses available, and supervising correspondence study As far as employed youth is concerned, the job of the institute would be to know each individual and to contribute in every possible way to his vocational success and to his continued development.

Services of the Adjustment Institute to those entering other educational institutions. The institute would help those who are planning to continue their formal education to select institutions, curriculums, and subjects suitable to their abilities, aptitudes, and needs, beginning this work before high school graduation. It would help them in gaining admission to the chosen institution or, if denied admission there, to some other institution equally suitable. It would assist them in planning their living arrangements, recreations, extracurricular activities,

and time budget for the first year in the light of information gathered concerning each one during his years in the local schools It would encourage them to come in to report and talk over their problems when home on vacations. It would receive reports at intervals from the institutions attended concerning the quality of work these young people were doing and concerning special needs of particular individuals. It would administer any scholarship and loan funds available for graduates of local high schools and endeavor to obtain additional funds for the aid of worthy students It would help other capable and ambitious students to work out plans for self-support while continuing their education And it would assist those who drop out of college to make and carry out new plans.

Services of the Adjustment Institute to unemployed youth. The unemployed group requires a more varied program of assistance than either of the others The institute would, of course, register for placement all who were seeking jobs and would concern itself constantly with finding employment for them in private industry or business. It would select from this group candidates for assignment to C C C. camps and receive these back into its fold again when they leave such assignments [1]

The institute might well take over the entire N.Y A program in its community and should by all means develop and carry on work projects aided by federal funds as is now done by N Y A. All such projects would be of a community-service nature, projects which do not interfere with employment of adults and which provide, say, 10 hours of work per week for any unemployed youth whether or not he or she comes from a family that is on relief. As suggested some years ago by the writer, one project might be a survey of recreational opportunities and needs in the community with a list of practicable things to be done in order to improve recreational facilities Another project might be a survey of community-service opportunities and needs, with a similar list of things that ought to be done for the improvement of community life.[2] These two surveys would yield many suit-

[1] As employment conditions improve, part of the more than $300,000,000 per year now spent on C C C work could be used profitably in maintaining these community adjustment institutes, thus serving all youth in their home environments

[2] George E Myers, "What of Unemployed Youth?" *Education*, LV (April, 1935), 470

able work projects for assignment to members of the group. Naturally records of the part-time work for each youth would be kept as a basis for recommendation for full-time employment later.

All who participate in the work program would be expected to spend a fixed number of hours per week, perhaps 20, in an educational, recreational, and unpaid community-service program provided by the institute, and determined in accordance with individual needs and abilities. Vocational education, preceded and accompanied by vocational counseling, should be a part of this program General education, for some of a cultural type, and for all of a type growing out of and related to their 10 hours of work per week and current economic and social conditions, would also form a part Voluntary community service of types that could not properly be brought into the work program would likewise be included, as would physical and social recreation.

The Adjustment Institute's place in the community. The Adjustment Institute would thus constitute in each community an agency that would be responsible for serving in a comprehensive manner the adjustment needs of all youth who leave the secondary schools of that community. It might properly exchange courtesies with similar institutes in other communities as youth move from one community to another. As part of the public school system, it would be in position to gain the cooperation of other local social agencies interested in youth and to serve as the coordinating agency for these as far as adjustment problems are concerned With responsibility for placement, for part-time work with pay if full-time work is not available, and for the many other services discussed above, it should promptly win the confidence and support of both youth and adults if its work is well done. It would come to be looked upon as the community's own agency for continuing the educational program of its elementary and secondary schools and for building a better community in the future as well as for aiding youth to find their way into the activities of adult life

Adjustment a neglected service. As one reads the literature of vocational guidance and especially as one notes how little follow-up or adjustment work is done by city school systems, even by those that have developed the better programs of vocational guidance, he is obliged to admit that here is a much neglected service. Whatever arrangements are made for carrying

it on in the future, whether by adjustment institutes or in other ways, assistance to youth comparable to that proposed through the Adjustment Institute must be recognized as a fundamental part of a comprehensive program of vocational guidance, and far more adequate provisions must be made for carrying it on than have yet been given serious consideration.

SUMMARY

If the follow-up service is to be performed effectively for employed youth, a plan for determining the adjustment needs of young workers is necessary. Written reports from the employer and from the young worker are desirable but difficult to obtain Telephone calls to the employer and especially personal calls at the place of employment by a representative of the placement office are helpful. Calls made by the youth on his former school counselor have value and should be encouraged. All members of the staff of the school formerly attended by the youth may well be requested to turn in reports of informal talks with him concerning his work and his needs related to that work When other parts of the program of vocational guidance are working well, both the youth and his employer are more ready to cooperate in supplying the desired information.

Among the most important adjustment needs of a young worker are assistance in obtaining a new job, because he has lost one or because it is time for him to move on to something better, help in removing causes of dissatisfaction, aid in determining what additional preparation should be obtained and how and where to obtain it, help in planning desirable cultural, recreational, and community-service activities, and help in meeting the discouragements of prolonged unemployment While the Civilian Conservation Corps and the National Youth Administration are rendering valuable follow-up service to a considerable number of unemployed youth, it must be recognized that these agencies deal only with the unemployed, with only a relatively small part of these, with only part of their adjustment needs, and for only a limited time. The great problem of adjustment of American youth must be attacked by some other agency or agencies. Other social agencies are attacking it in various ways but there is no coordinated program or plan of attack.

A new type of local educational institution is needed to take responsibility for the occupational and other adjustments of

youth. It might well be called the Adjustment Institute. It would be a unit of the public school system. It would serve the needs of adults as well as of youth. All youth in the community would be transferred to the institute upon leaving school, as they are now transferred from junior high to senior high school. Some would be assisted in finding employment; others in entering college or a special school; others in gaining admittance to the Civilian Conservation Corps.

For the unemployed, part-time work of a public nature accompanied by a program of civic and vocational education, recreation, and community service should be provided with financial aid from the federal government similar to that now furnished for the National Youth Administration program The experience and record of the unemployed youth in the part-time work and other activities would be considered in helping him to obtain full-time employment in industry or business Many kinds of evening and part-time classes would be conducted by the institute for employed and unemployed Supervised correspondence courses would be provided The institute would undertake to discover and serve the needs of all youth in the community and to obtain the cooperation of many other agencies in this task Vocational guidance would have a large place in its program It would build a better community as well as aid youth to find their way into the activities of adult life

Whether carried on by the Adjustment Institute or in some other way, the follow-up service is a much neglected and very challenging service.

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CHAPTER XVII

THE RESEARCH SERVICE

The eighth and last of the services of a comprehensive vocational guidance program listed in Chap VII is the research service The term "research" as here used includes studies and investigations of various kinds pertaining to local programs of vocational guidance.

To be sure, small school systems will find it difficult to do much that deserves the name of research in this field because of limited staff and funds On the other hand, the amount of this type of service needed is determined by the size of the school system, the small system requiring less But no school system that carries on a vocational guidance program, however limited, can afford to neglect the research service entirely. Often a faculty member of a higher educational institution may be called in to assist members of the local staff in this work.

Purposes of the research service. The chief purpose of this service is, of course, to improve the effectiveness of the other services and of the program as a whole, and to aid in adapting these to changing conditions. However carefully planned the program may be, its continued effectiveness will depend upon the care and thoroughness with which the methods and techniques of the various services are checked from time to time, experiments with different methods are carried out, and new devices are developed to meet new situations.

A second and more remote purpose of this service is to cooperate with other agencies in the solution of problems of national or regional interest in the field of vocational guidance. In the main, research work on such problems will be done by agencies of national scope like the U S. Office of Education, the U.S Bureau of Employment Security, the National Vocational Guidance Association, and private foundations. For example, as pointed out in an earlier chapter, no other agency is in so favorable a position as the U S Bureau of Employment Security to devise standardized tests of occupational proficiency. But the

research service of a city program of vocational guidance may properly be expected to cooperate with the U S Bureau of Employment Security in validating these tests for use with students completing the vocational preparation provided by the schools.

Research in occupational information. Obviously the occupational information used in classwork, in counseling, and as reference material must be accurate, reliable, significant, and up to date It must also fit the community in which it is used. National organizations have carried on extensive investigations in this field and have developed a mass of material descriptive of a wide range of occupations Especially has the U S. Bureau of Employment Security been very active in this respect recently, publishing descriptions of thousands of jobs The National Vocational Guidance Association has done important work in developing techniques of occupational research and in illustrating their use. Numerous other agencies also have prepared and published occupational information material

As far as practicable any local vocational guidance program would draw on the wealth of available material But it sometimes happens that an occupation as carried on locally differs from the same occupation in some respects as it is described in literature for national circulation. Still more is it true that some occupations are local in character and, therefore, have not been investigated and described by agencies interested in preparing material for use in wide areas

It is the business of the research service of a local program of vocational guidance to make sure that imported material describing common occupations carried on in the community fits local conditions, and to prepare material covering the more important occupations that are peculiar to the local community. Continuing research is necessary if occupational information material is to give an adequate understanding of the opportunities and requirements of local occupations as well as a general picture of those that are most important nationally. The problem is one of checking and supplementing available standard descriptions of occupations in terms of local conditions when these conditions differ from national norms.

Another type of research in this field which pays dividends if well done is that which is concerned with methods of aiding youth

to gain a functioning knowledge of the occupational information available. Controlled experiments in different methods of teaching this subject aimed at determining which is the better, not only with respect to the amount of information acquired by the students but also with reference to the influence of this information on their occupational plans, are quite possible and practicable in some school systems, especially in larger ones. If members of the staff concerned with vocational guidance do not have the training or the time to carry through such studies, university professors and graduate students can be found who will appreciate an opportunity to work on this problem in cooperation with school authorities who have a genuine interest in it

Research in occupational exploration. In Chap VIII suggestions were presented which were aimed at increasing the values of secondary school work as a means of helping youth discover their aptitudes, interests, and limitations It was proposed that teachers in secondary schools be made more conscious of the exploratory possibilities of their subjects; that a larger number of the elements that go to make up an occupation be introduced into the school experiences that are supposed to be exploratory for that occupation; that in case of those courses which especially stress vocational exploration, the methods of teaching and class management bring in more features of the working environment of the occupations represented, and that more attention be given to the exploratory values of extracurricular activities and part-time employment But if these suggestions are carried out to the best advantage, numerous investigations are necessary

How can high school teachers be made properly conscious of the fact that they are not only teaching subjects to the students in their classes but that they are also helping these same students to discover their own assets and liabilities through the subjects taught? Different ways of creating and developing on the part of teachers appreciation of the exploratory function of education must be tried out experimentally before the best way is determined. The best way in one school system may not be the best way in another, because of differences in the teaching personnel and other influencing factors.

Once this appreciation is developed, problems of selection of new material to be added to the courses of study in the various subjects claim attention. If, as suggested above, more elements

of experience from the occupation for which a particular subject is exploratory are to be brought into the course of study in that subject, which of the many possible elements shall be selected? For example, if the general shop course in any particular school is to be enriched in this way, what operations or processes of carpentry, electrical work, metalwork, printing, and other industrial occupations should be added? If the subject is chemistry, what more should be brought in from the work of industrial chemists? Or if English, what additional experiences in news reporting, editorial, feature, story, and other forms of writing, and in the teaching of English shall be incorporated? Of course, the answers will differ according to what is already in the courses of study and, perhaps, according to the occupational activities of the community But the point stressed here is that investigation—research—is necessary in arriving at satisfactory answers to these questions.

Equally true is it that methods of teaching and class management require critical examination in regard to their part in realizing the exploratory function of education. Experiments in teaching the same material by different methods need to be tried and the results evaluated as nearly as possible. The values of different kinds of instruction sheets and the conditions favorable to the use of each kind call for investigation. The practice of dividing industrial arts classes into groups with a student foreman in charge of each group, thus approximating an important feature of industrial management, needs evaluation. This, or something akin to it, might also be tried in other high school subjects Though measuring the effects of different methods of teaching and class management with reference to realization of the exploratory objective is admittedly a difficult undertaking, research along these lines also is highly desirable.

If content of courses and methods of teaching are modified in order to bring about better results in exploration, checks are desirable to make sure that other values of the work are not sacrificed. This, again, is a research problem While many believe that these other values are increased rather than lessened, beliefs and opinions are, of course, not satisfactory evidence.

Then, too, a great deal of experimentation and research is needed in connection with extracurricular activities in relation to vocational exploration. Some of the questions which call for

answers in particular schools are: How comprehensive a program of extracurricular activities is desirable? To what extent should the exploratory purpose be stressed in each of these? How does each activity now contribute to vocational exploration? What modifications in its yearly program are desirable if its exploratory value is to be increased? What type of faculty sponsorship is preferable? None of these are questions to be answered by the snap judgment of the principal or of a committee of teachers

Finally, experimentation with vocational exploration by means of part-time employment and evaluation of experiments of this type deserve to be included in the research service of a comprehensive program of vocational guidance.

Research in gathering personal data. It was noted in earlier chapters that in counseling an individual as complete information as can be brought together concerning his personal assets and liabilities is essential. It was pointed out that gathering much of this information is the function of other divisions of the student-personnel organization and that the vocational guidance division is concerned with using the information wisely. Accordingly, giving and scoring intelligence tests, aptitude tests, and tests of personality traits belong to the bureau of tests and measurements, psychological clinic, or other division, by whatever name it is known, which does this type of work for the school system as a whole. In like manner, the health department supplies physical data concerning the student, the attendance department and visiting teachers, data concerning his social environment, and subject teachers, his scholastic record

However, assembling this material in convenient form for use in counseling, checking it for completeness and adequacy for its intended use, and keeping it up to date are proper functions of the personal data collecting service of the vocational guidance program. Investigations for the purpose of determining the best methods of obtaining the desired reports from the various sources, and other investigations to determine suitable record forms for compiling the information gathered in these reports, always with reference to the scope of the local guidance program, are desirable Also, cooperation with other services of the program in validating tests, in determining the worth of rating scales, and the like should be expected.

Research in counseling. Here again the problem is largely one of studying and evaluating different methods and techniques in dealing with different types of individuals as revealed to the counselor by their records and by earlier interviews with them. The adequacy of the records available, how best to use these records; how best to use the interview period, what methods are most successful in bringing back former students for counseling interviews, these and similar matters will claim attention and require investigation.

Attention may well be given to measuring the effectiveness of different counselors and to determining what qualities are most essential to good counseling and how these differ with different types of youth in the school system The possibility and desirability of using home-room teachers and subject teachers for certain counseling responsibilities deserve investigation, and how the counseling activities of different members of the staff fit into the school counseling service as a whole

Research in vocational preparation. Among the many questions demanding investigation are For what occupations should the school system provide preparation? What kind of preparation is needed for these occupations? What part of this preparation should be provided in all-day classes, what part in part-time classes, what part in evening classes, and what part wholly in employment? What provision is already made in the community for this preparation by public schools, private schools, employers? Obviously, a thorough vocational education survey, such as was suggested in Chap. XIV, is necessary in order to answer these questions.

Here again, even more than in case of occupational exploration, the selection of content for every subject taught calls for occupational analysis and investigation and selection of related technical, social, and economic material if the subject is to serve its purpose effectively. And this investigation must concern itself with keeping the content in line with changes in industry and business.

Methods and techniques used in teaching and class management also require study, as do opportunities for cooperation with employers in providing the needed vocational preparation.

Nor is it safe to assume that all who enter certain vocational preparatory classes should be there, however efficient the earlier

parts of the guidance program may be considered. Studies of the performance, interest, and attitudes of vocational students need to be made from time to time, not only as a service to the students but also as a check on the adequacy of the vocational guidance they have received thus far

Research in placement. An efficient placement service depends, among other things, on up-to-date information concerning the general types of work open to youth The surveys of high school graduates made from time to time in Minneapolis[1] and that made in Philadelphia[2] in 1935 were of distinct value in this respect to the placement work of those cities. Since conditions differ in different cities and at different times in the same city, such surveys need to be made by all school systems that stress placement and need to be repeated at intervals There is no better way of ascertaining the kinds of work which are open to youth leaving school and the number of youth required for each kind than by finding out what those youth are doing who have left school recently

Of course, the placement service must continually investigate specific employment opportunities. It must learn just what firms need young workers today, or tomorrow, or next week, how many each firm needs, the qualifications required for each position to be filled, the wholesomeness of working conditions, and opportunities for advancement offered by the position. Its selection of youth to apply for particular positions will be better if it studies the idiosyncrasies of each employing officer with whom it deals frequently and then sends only such youth as possess personality characteristics that seem likely to please that officer

Other matters that call for investigation are techniques of conducting placement interviews, methods of establishing wholesome relationships with employers, possibilities of cooperation with the local office of the state employment service and with school or other public placement services in neighboring cities. The possibilities of obtaining objective data concerning appli-

[1] BARBARA H WRIGHT, "A Follow-up of 1934 Graduates," *Occupations The Vocational Guidance Magazine*, XV (October, 1936), 42–45

[2] ANN PAVAN, "A Follow-up Study of Philadelphia Public School Graduates," *Occupations The Vocational Guidance Magazine*, XVI (December, 1937), 252–259

cants by means of standardized tests of occupational proficiency deserve attention also. In some of the larger cities it may be desirable for the placement service to cooperate with the state and federal employment services in developing such tests.

Research in follow-up. As indicated in Chap. XVI, both the nature and the effectiveness of the follow-up service needed by a particular youth depend upon a clear understanding of the adjustment problems faced by that youth The follow-up service is an individual service It calls for study of the individual in beyond-the-school situations, as well as interpretation of information gathered concerning him while he is in school. The types of information sought in that study have already been discussed sufficiently to suggest its scope

Investigation and evaluation of various methods of determining the adjustment needs of individual youth are desirable, as are also investigation and evaluation of techniques used in serving these needs. Since very little has yet been done along these lines, great opportunities for important research will be found here. A local survey of opportunities for part-time employment on community-service projects that will not bring unemployed youth into competition with adult labor, investigation of ways in which work experiences may be made to yield their maximum contribution to development of the young worker, and study of the possibilities of cooperation with various other agencies in performing the follow-up service are a few of the many research problems that challenge consideration in this field

Research pertaining to the effectiveness of the program as a whole. The question is often asked What evidence is there that youth who have been subjected to a comprehensive program of vocational guidance are any more successful or happy in their occupational life because of this experience? As Cole expresses it:

> Is there any justification for calling guidance a fad? Are there any proofs that vocational guidance scientifically carried out can be made to pay large dividends? Can the professional vocational guidance men prove to industry and to society as a whole that their program is practical, effective, and above all that it brings results? Can they prove to the business man that vocational guidance reduces labor turnover, makes for happier and more contented workers, increases effi-

ciency, and reduces cost of production? In short, can a vocational guidance director prove that his work is bearing worthy results?[1]

The vocational guidance staff of many school systems could carry through investigations, similar to the one made by Cole, for the purpose of answering these and other questions. Certainly scientific evidence on its effectiveness, whether favorable or unfavorable, would be of great value to the vocational guidance program of any city But great care must be taken to be sure that the evidence is scientific

A significant investigation of this general character, financed by a private foundation, is now in progress in the city schools of Flint, Mich Two groups of ninth-grade pupils of the Emerson Junior High School, 234 in each group, were chosen for the investigation The experimental group has the benefit of a carefully planned program of guidance conducted by psychologists and trained counselors, while the control group is provided only with such general guidance services as are common to many school systems when no special guidance workers are employed. The investigation, planned for a five-year period, is at this writing starting its second year. An evaluation of results is to be made at the conclusion of the five-year period

Coordinating research and research results. Obviously some of the studies and investigations mentioned in this chapter are of interest to more than one of the vocational guidance services. For example, information obtained in research related to placement is of value also to the counseling and follow-up services. Some of that obtained in research pertaining to vocational preparation is useful in the occupational exploration part of the program It is to be expected that when any study is undertaken its relations to the different services will be given proper consideration in the provisions made both for conducting the study and for distributing its results In other words, complete coordination of the research activities is essential

In this connection it may be well to note that similar coordination between the research activities of the psychological clinic, the health service, and other branches of the student personnel department of the school system and that of the vocational

[1] ROBERT C COLE, *An Evaluation of the Vocational Guidance Program in the Worcester Boys' Club*, p 2, mimeographed report, Worcester, Mass Worcester Boys' Club, 1939

guidance bureau is equally essential. Often an investigation made by one part of a school system with much labor and expense would have been of great value to another part of the same system if the two had only planned and carried it through together. Sometimes data gathered by one part which would be of value to another are quite unknown to the latter.

Assignment of research work. To this question the answer must be that most of the research mentioned in this chapter should be done by the vocational guidance staff—the people who are carrying on the various services. To be sure, the head of the guidance program would be expected to assume the leadership in this matter. He may find it desirable to appoint a committee for the purposes of planning and coordinating research work. But for their own benefit as well as because they are closer to these problems than anyone else, members of the staff who are engaged in the activities of the program must be expected to do much of the actual research work in so far as they are qualified to do it. Constant efforts should be made to improve their qualifications in this respect. As suggested earlier, research workers from colleges and universities may be called in for help. Some of the larger school systems may employ full-time research workers on the vocational guidance staff. But the research service, aimed at improving the effectiveness of the vocational guidance program, will fall far short of its possibilities unless members of the staff as a whole are brought into this work as fully as practicable.

Summary

The principal purpose of the research service is to improve the effectiveness of the other services and of the program as a whole. General descriptions of occupations require checking by local conditions. Local occupations not described in the general literature of the field call for investigation. Occupational information must be kept up to date.

Methods of developing appreciation on the part of high school teachers of the exploratory function of their work and ways of increasing its vocational exploratory values demand careful study. Experimentation for the purpose of securing optimal exploratory values from extracurricular activities and part-time employment is desirable. Investigations covering the best

methods of obtaining the desired personal data concerning pupils from the various sources and compiling and recording these data for convenient use are important The adequacy of records for counseling purposes, methods of interviewing, methods used in inducing former students to come back for counseling interviews, and ways to use home-room teachers and others for certain counseling responsibilities deserve investigation.

It is necessary to determine by research methods the nature and scope of the vocational education program which should be carried on. Selection of content for every subject included in this program calls for occupational analysis. Methods of teaching, of class management, and of obtaining desirable cooperation from employers and labor groups are matters for careful experimentation. The placement service must investigate specific employment opportunities, methods of establishing wholesome relationships with employers, possibilities of cooperation with public employment offices, and other matters which may contribute to the success of its work Careful study and evaluation of various methods of determining adjustment needs of individual youth and of serving these needs are necessary; also possibilities of and plans for cooperation with other social agencies in performing an adequate follow-up service. Research pertaining to the effectiveness of the vocational guidance program as a whole is desirable also if carried on in a scientific manner.

Coordination of the research activities carried on by the different services is, of course, essential; also coordination between these activities and the research work of other departments of the school system—psychological clinic, health service, etc.

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CHAPTER XVIII

ORGANIZATION AND ADMINISTRATION OF THE PROGRAM

In earlier chapters discussion has centered chiefly on what is involved in each of the eight services comprising a comprehensive program of vocational guidance and on ways of performing these services Only incidentally has attention been given to the administrative relationships of the various services to each other and to other departments of the school system. The organization and administration of the program as a whole now require attention

It should be understood that in what follows an effort is made to propose a more or less ideal setup for such a program as has been described. It is recognized that school systems cannot, if they would, make themselves over at once in order to introduce these proposals. However, the plan of organization presented in this chapter is one toward which a school system might work as opportunities for reorganization arise from time to time. It is a comparatively simple plan, considering the work to be done It fits into the organization of the school system as a whole. It takes account of all the various purposes of the program of vocational guidance. While planned especially for a rather large school system, it deals with relationships that are basic in all school systems. Provision will need to be made for the same services even in a small system but, as indicated, on a less extensive scale

Existing types of organization. Before presenting the proposed plan it is well to note the principal kinds of organization now in use in American cities. A few years ago Reavis classified under four headings the types of organization found in his nationwide survey of guidance: (1) centralized bureaus of guidance for secondary schools in city systems, represented by Boston and Cincinnati; (2) city school systems with a central guidance organization but with the individual secondary school considered

the unit, represented by Providence and Milwaukee; (3) centralized bureaus or departments in individual secondary schools, represented by the LaSalle-Peru Township High School and Junior College, (4) central guidance organizations in individual secondary schools which use regular officers and teachers as guidance workers, represented by the Joliet Township High School and Junior College and the New Trier Township High School [1]

It should be noted that Reavis's investigation was not restricted to vocational guidance but dealt with all that bears the guidance label, some of which the author of this book has insisted is organized education rather than any kind of guidance For example, the Providence plan provides for "educational, social, character, civic, and vocational guidance" It will be recalled that in Chap II so-called "civic," "social," and "moral" guidance were rejected as kinds of guidance, the point being made that what is meant by these terms is in reality not guidance of any kind, but desirable provisions for organized education along civic, social, and moral lines.

However, it appears that Reavis's classification of existing types of organization for guidance in general applies also in case of vocational guidance, though the degree of emphasis placed on vocational guidance may well have determined the type of organization chosen in some particular school systems. It is the belief of the author that the second type in Reavis's list as given above is best suited to the general organization of American school systems The plan proposed in the following pages is of this type, though differing in important respects from the plans of Providence and Milwaukee, chiefly because the primary concern here is *vocational* guidance.

Place of the Vocational Guidance Program in the Administrative Setup of the School System

A vocational guidance program of the type under consideration in this book has its relationships to the school system as a whole and, at the same time, has special relationships to the work of each secondary school in the system. In attempting to set up a satisfactory plan of organization for this program it seems wise to deal first with its place in the administrative

[1] W C Reavis, *Programs of Guidance*, U S Office of Education, Bulletin 17, Washington· Government Printing Office, 1932

arrangements of the school system as a whole, reserving for later discussion the question of the place of vocational guidance in the setup of the individual secondary school.

Pupil personnel work in relation to other activities of the school system. It will be recalled that according to Chap III the activities involved in the work of a school system appear to fall rather readily into four large groups. The first of these groups, which for want of a better name is called "instructional," includes curriculums, courses of study, teaching, and other activities closely related to teaching, whose primary purpose is to contribute directly to the development of individual pupils

A second group, called "business management," involves those activities concerned with providing the physical facilities required for instruction, such as buildings, equipment, supplies, etc

A third group, called "pupil personnel work," includes the activities whose function it is to bring those individuals for whom the schools are provided into the instructional program at such points and in such condition that each individual will derive therefrom the maximum of needed personal development

The fourth group bears the name "administration" and includes those activities which are concerned with final determination, in the light of existing conditions, of what in general shall be included in the activities of each of the other groups; with seeing that the activities of each group are carried on under as favorable conditions as possible, and with maintaining such relationships between the groups that each separately and all taken together make the maximum contribution to the work for which the school system exists

It must be kept in mind, however, that many of these activities do not belong exclusively in any one group. Occupational exploratory courses, for example, are not provided solely for the purpose of aiding pupils in selecting suitable vocations and in entering the proper classes in order to obtain the needed preparation for these vocations, which is a personnel function. They also contribute directly to the personal development of pupils, which is an instructional function In classifying such an activity its controlling purpose must determine whether it belongs in the pupil personnel group or in the instructional group. But in whichever group it falls its relationship to the other group should be recognized.

Vocational guidance a pupil personnel activity. Obviously vocational guidance in a school system, concerned with "assisting individual pupils to choose, prepare for, enter upon, and progress in an occupation"—beginning in the secondary school and continuing into the early years of employment life—is primarily a pupil personnel activity. While some of the services of a comprehensive program of vocational guidance as described in earlier chapters are strongly instructional in character, its controlling purpose places the program as a whole in the personnel group. Other activities in this group, as given on pages 49-51, Chap. III, are shown in Chart 5, which purposely is drawn to accentuate the relations of the vocational guidance services to the secondary schools and leaves out many other administrative features.
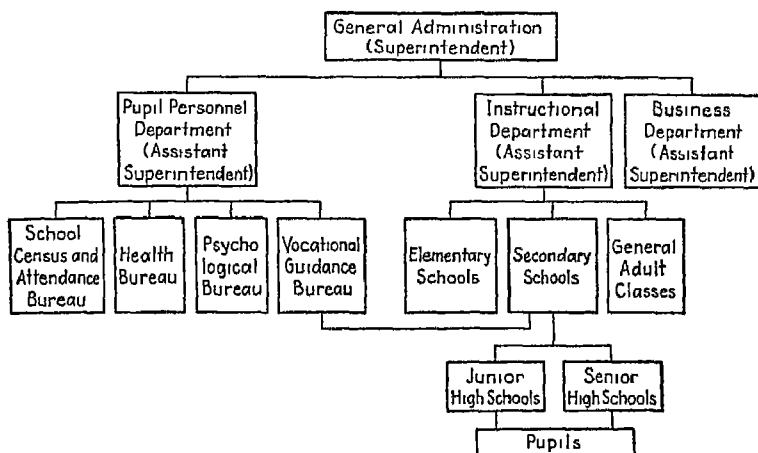
CHART 5—GENERAL ORGANIZATION OF A CITY SCHOOL SYSTEM

Organization of the pupil personnel department. According to this organization chart, the superintendent of a large school system would have three assistant superintendents, one in charge of instructional activities, another in charge of pupil personnel activities, and the third in charge of business management. The assistant superintendent in charge of pupil personnel activities would have a staff of four assistants or directors, each responsible for a distinct part of the work. One of these would be the director of vocational guidance Naturally, staff meetings of this group would deal with many problems of cooperation between the vocational guidance bureau and the other bureaus of the

personnel department Naturally, also, the assistant superintendents in charge of instruction and of personnel work would bring together from time to time the director of vocational guidance and the person or persons in charge of secondary education for the purposes of planning the vocational guidance program in the secondary schools and assuring favorable conditions for carrying it on. General arrangements covering the guidance activities of secondary schools of the system thus would be worked out cooperatively by these assistant superintendents and the members of their staffs who are directly concerned, and arrangements would be made for staff members of the vocational guidance bureau to work through the principals in the various high schools

Organization of the vocational guidance bureau itself. Turning to the organization of the vocational guidance bureau itself, it is proposed that this consist of five divisions The director in a large school system might thus have an immediate staff of five members consisting of the chiefs of these divisions. The services to be performed by each division are indicated in Chart 6. It will be observed that the research service described in Chap. XVII is not provided for in this chart. The reason is that research is a proper function of each of the other services. On this account the director of the bureau should bear responsibility for developing and supervising a coordinated plan of research covering all of the other services and participated in by guidance workers throughout the system.

Examination of Chart 6 will indicate that the vocational guidance bureau is expected to promote and evaluate exploration through all subjects of the secondary schools but not to supervise the teaching of even those subjects which have exploration as one of their important aims. For example, industrial arts courses in the junior high school, though rich in exploratory values, would be under the direction and supervision of the instructional department of the school system The self-inventory division of the vocational guidance bureau would work with and through members of the instructional staff to give these subjects the maximum of exploratory values consistent with their other functions, and would do the same for the other subjects of the secondary schools

A city-wide supervision of extracurricular activities is provided for under the self-inventory division. The purposes are to make
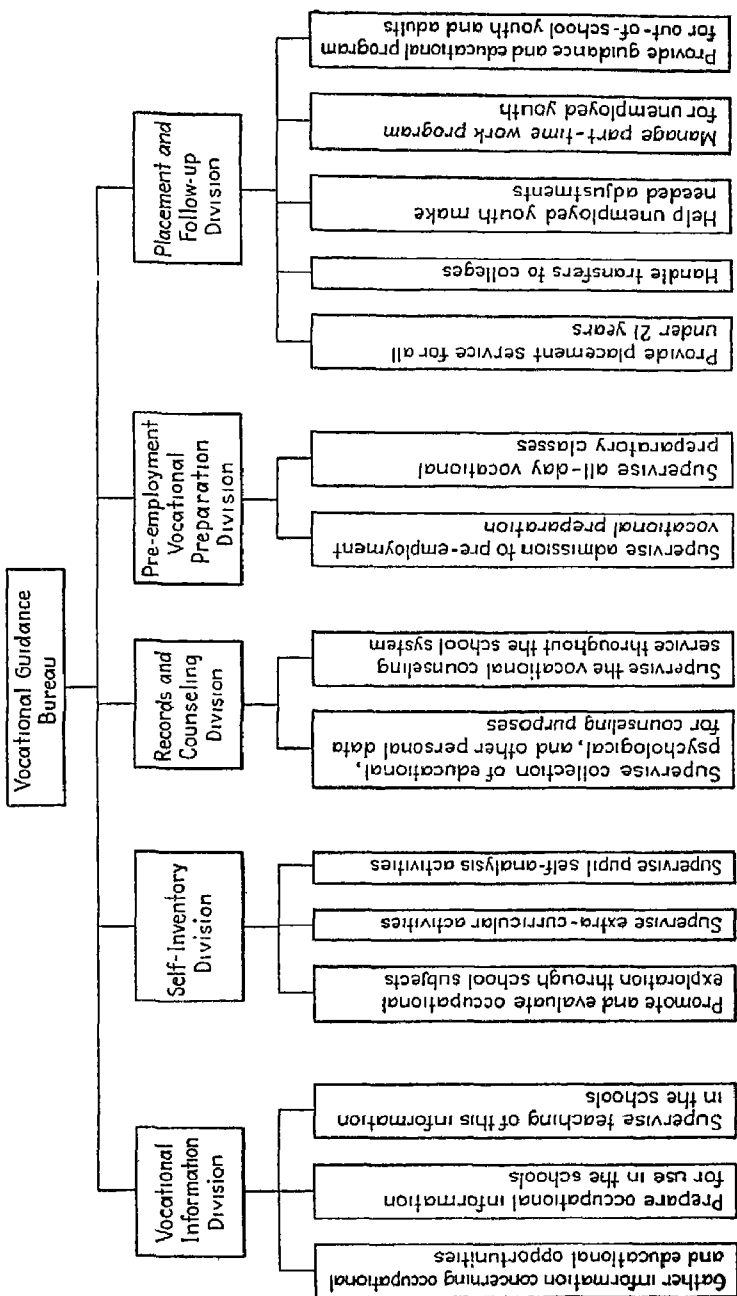
CHART 6 —ORGANIZATION OF A VOCATIONAL GUIDANCE BUREAU

sure that the exploratory possibilities of these activities are appreciated by those who sponsor them, that the program of such activities is well balanced in the various secondary schools of the system, and that these activities make their maximum contribution to pupil self-inventory.

It will be noted that the plan of organization presented here calls for supervision by the vocational guidance bureau of (1) the teaching of occupational information courses, (2) the teaching of preemployment vocational preparatory courses, and (3) the vocational education of out-of-school youth and adults. While teaching is an instructional activity, it is in these cases so directly concerned with successful transfer from full-time school to full-time employment (the task of vocational guidance) that these three teaching jobs seem to be proper functions of this bureau

It should be understood that the placement and follow-up division would be responsible for all the activities indicated under it in the chart for the entire school system. If a particular school or the state employment office of the community or a private social agency is called upon to perform or assist in performing one or more of these services, responsibility for its proper performance would still rest with this division of the bureau. If and when organized, the Adjustment Institute which was discussed in Chap. XVI would take over the duties of the placement and follow-up division.

The Vocational Guidance Setup within a Secondary School

That the program of vocational guidance within any secondary school of the system is a school enterprise in which all members of the staff participate, rather than the sole responsibility of a counselor or group of counselors only, has been recognized throughout this book. Here and there mention has been made of ways in which this or that member of the staff would contribute to the program. It now remains to summarize the vocational guidance duties of the various staff members and to consider the type of organization that seems likely to bring satisfactory results in the performance of these duties. It should be understood that many staff members will do more but none should do less than is included in this summary.

The principal's place in the program. Good administration of a school system requires that the principal of each school shall be the responsible administrative authority for all the work done in that school, subject always to the direction of the superintendent and the immediate members of his staff. This means that vocational guidance activities, promoted and supervised throughout the system by the bureau of vocational guidance, are finally the principal's responsibility as far as his school is concerned. The bureau of vocational guidance must work through the principal and not directly with counselors, home-room teachers, subject teachers, and others, except as authorized by the principal.

The secondary school principal thus becomes a key man of the vocational guidance program within his school If the program is to be a success he must be in sympathy with its purposes and must give it his wholehearted support It is his business to accept the bureau's proposals for his particular school or to make other proposals in harmony with the system's general guidance plan which are calculated better to serve the needs of his school. It is his business to provide as favorable conditions as practicable for carrying on the various guidance services—equipment and supplies for occupational exploratory experiences, suitable office arrangements for counseling, an adequate record system, and the like. He it is who, with the assistance of his head counselor must be expected to help members of his staff to see and perform their particular duties in the program—subject teachers, home-room teachers, the librarian, and others He must be expected, also, through the head counselor, to check on the effectiveness of the work, and to promote and encourage such research activities as will increase its effectiveness.

Of course, in all these matters he will have the assistance of vocational guidance specialists of the bureau's staff and of his own staff (the counselors) but responsibility for such administrative action as may be needed will still be his. If the school has one or more assistant principals or a dean of boys and dean of girls, some of the duties just listed may be passed on by the principal to these officers. However, responsibility still centers in the principal's office.

The work of the head counselor and his staff. The head counselor is the school's specialist in vocational guidance. In

schools of 300 students or more he may be expected to devote his entire time to this program In larger schools he will need full-time or part-time assistants who have had considerable training in the guidance field. In a small school both he and those who work with him will teach as well as perform vocational guidance services With assistance from the bureau's office and in consultation with the principal, the head counselor will plan and coordinate the vocational guidance program within the school.

In addition to counseling students, he will be the principal's agent in supervising the vocational guidance work of other members of the staff, including home-room teachers. Also he will represent the principal and the bureau in supervision of the teaching of occupational information and in providing as effective occupational exploration as is practicable Upon him will rest responsibility for gathering and keeping up to date the student records used in counseling interviews, for obtaining additional information concerning health and mental characteristics of individual pupils by sending them to health and psychological examiners, and for sending these records on to the placement office when the pupil seeks employment. A more complete discussion of the counselor's duties may be found in Chap XIII.

The place of the home-room teacher. Next in line come the home-room teachers whose vocational guidance duties include gathering and reporting to the head counselor's office significant information concerning individual pupils, performing themselves certain types of counseling services agreed upon with the head counselor, referring individuals to the counselor when they need his assistance, and cultivating among their pupils a favorable attitude toward the vocational guidance program. Usually these and other important home-room services are performed most successfully when each home-room teacher has charge of the same group of pupils throughout their three years of junior or senior high school.

The tendency in some schools to center the entire guidance program in home rooms and to expect the home-room teacher to do the counseling grows out of the conception of guidance which identifies guidance with education Many of the so-called "guidance" duties assigned to home-room teachers are essentially instructional in nature, designed for the worthy purpose of contributing to the pupil's development along health, social, civic,

moral, and cultural lines but not closely related to "assisting the individual to choose, prepare for, enter upon, and progress in an occupation" Where the guidance program centers in the home room it will usually be found that *vocational* guidance is sadly neglected. This is not surprising since few home-room teachers possess either the needed training or the interest required for effective vocational guidance. Besides, they have so many other duties to perform that they do not have sufficient time for this one While some schools use a full regular period one day each week for home-room activities, and briefer periods on the other days, in many other schools the amount of time assigned to home-room work is entirely too short and the opportunities for private interviews with pupils far too infrequent for effective vocational guidance. A thoughtful teacher of maturity and experience who was deeply interested in vocational guidance described the home-room period in the large high school where she taught as follows

> The home-room period is a fifteen-minute period, and is usually the busiest period of the day The teacher takes the attendance, makes out her report, makes out excuses for students who have returned after absence, confers with these regarding sore throats and temperatures and if necessary writes out permits for them to go to the school nurse, questions tardy pupils and assigns them to an extra period at the end of the day, reads and interprets the bulletin board notices, assists in making out any special blanks which call for information, etc , etc. The home-room teachers are counselors, clerks, disciplinarians, broadcasters of the latest news of the day, police detectives, and distributors of early morning cheer

Obviously vocational guidance has little chance in such a home room which, by the way, had 40 pupils. While the conditions here described may be exceptional, few home-room teachers have that freedom from administrative and disciplinary duties which is essential to effective counseling As Douglass says, "Except in those schools in which there are competent and forceful head counselors or chief advisers with the authority and the time to direct the activities of the advisers, the home-room, or group, advisory organization has rarely been very successful as an instrument for guidance "[1]

[1] HARL R DOUGLASS, *Organization and Administration of Secondary Schools*, p 193, Boston: Ginn and Company, 1932.

The place of the subject teacher. The subject teacher's first duty is, of course, instructional; namely, to make his subject contribute as much as possible to the development of his pupils. However, in doing this he has exceptional opportunities to perform also certain vocational guidance services In fact, no other member of the school staff is so favorably situated to perform some of these services One of them, as noted earlier, is to help his pupils by means of the subject he teaches to discover their abilities and limitations. Another is to observe and report to the head counselor aptitudes, special interests, and outstanding personality traits of his pupils A third is to assist his pupils in obtaining significant information concerning opportunities and requirements of occupations based upon or closely related to the subject he teaches.

Others include sponsoring a club or other extracurricular activity in such manner that it yields rich exploratory values to its participants, counseling certain pupils who are keenly interested in his subject, referring pupils to the head counselor, and cooperating in certain types of vocational guidance research projects, especially those pertaining to the services just mentioned Like the home-room teacher he, too, should help to build up a favorable attitude toward the vocational guidance program.

Through the business and industrial contacts which he makes in gathering current material for his teaching he may often be helpful to the placement office in finding suitable employment for pupils leaving school. To be sure, the contribution which a subject teacher is able to make to the program depends upon his subject, his personality, his interest in youth, and other factors But every teacher is in position to make some contribution along the lines mentioned above. The wise head counselor will study the teaching staff of his school in order to obtain as much assistance as possible from each member in improving the various vocational guidance services.

The school librarian's part in the program. The school librarian occupies a unique position in relation to that part of the program which deals with supplying information concerning occupations. This important member of the school staff brings together for convenient use occupational information material contained in the library, orders new material of this type in

accordance with a plan worked out to serve the needs of the school as a whole, calls attention to this material in an interesting manner by means of notices on the bulletin board and in the school paper, and helps individual pupils to find information concerning particular occupations which interest them. The librarian may well report to the head counselor cases of pupils who read extensively along some special line, and also send to the same officer notes concerning those personality traits observed in individual pupils which seem to have significance in relation to vocational plans.

An organization chart for the high school program of vocational guidance. It is difficult to present in graphic form the setup which has just been discussed for vocational guidance within a high school However, Chart 7 shows fairly well the
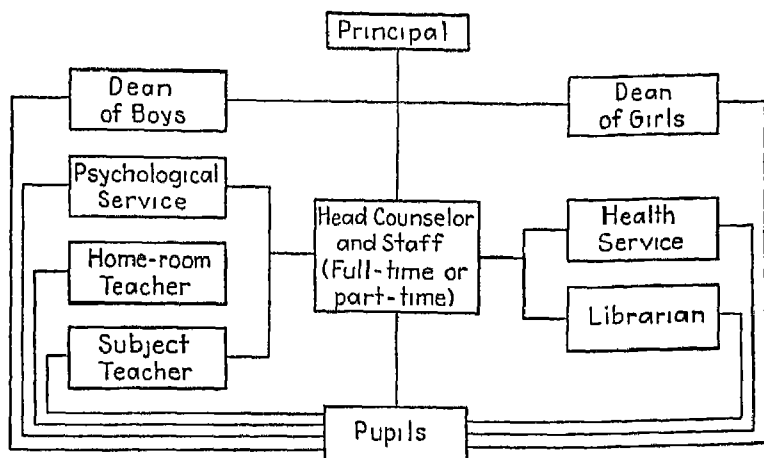
CHART 7 —ORGANIZATION FOR VOCATIONAL GUIDANCE IN A SECONDARY SCHOOL.

relationships among different members of the school staff as far as this particular work is concerned. It should be understood that this chart deals only with the school's vocational guidance responsibilities and not with other aspects of administration. The principal's administrative relationships to other than vocational guidance members of his staff do not appear.

At the same time it should be understood that the relationships between vocational guidance and other forms of guidance discussed in Chap II are so close that the same organization might well be expected to care for these other forms of guidance also.

In fact, because of this relationship and because of the strength of youth's interest in vocational success these other forms of guidance should benefit by such an arrangement It will be observed that the counseling staff, composed as it should be of the school's specialists in the field, occupies the central position. At the same time, it is shown that all other members of the staff are related both to the counselors and to the pupils in carrying on the program

Organization and Administration of the Adjustment Institute

It will be recalled that upon the Adjustment Institute proposed in Chap XVI, to which all youth of the community would be transferred as they leave the secondary schools, was placed responsibility for the counseling, placement, continued education, part-time public work for the unemployed, and recreational activities of those who enter it In order that these services may be performed properly, a carefully planned organization is necessary of which only a preliminary sketch can be presented here.

The institute would require an official head, probably called a principal, working under the general leadership of the director of the bureau of vocational guidance or directly under the assistant superintendent in charge of the pupil personnel department.

Provision for counseling. A head counselor would be needed and a group of counselors, the number in the group depending upon the size of the school system All the senior high school counselors should belong to this group, each serving part-time in the institute in addition to carrying on the work in the school to which he is attached. This service might consist of only 2 hours' work one evening each week, but it would make the counselor available for conferences with the same youth who were counseled by him while they were still in high school. In a large city the head counselor might require the assistance of full-time counselors, also

Provision for placement. A head placement worker, with a staff whose size is determined by the number of youth to be served, is necessary. As noted earlier, all the organized placement work for the youth of the community would center in the institute. This should be true whether the actual placements are made by the placement department of the institute or through

the state employment office of the community, the former arrangement being highly desirable for reasons discussed earlier.

Provision for continued education. The continued education part of the institute's service would call for a department or division with a qualified staff of coordinators and teachers. This department would have charge of the entire adult vocational education program as well as of that provided for the preparation for employment of those youth who have left the regular secondary schools of the community. All-day classes preparing for specific vocations, part-time classes, evening classes, supervised correspondence study, and other forms of educational activities would be included under this department In a large city considerable organization would be necessary in order to carry on this part of the institute's work, much of which is already done by many school systems under a different setup.

Provision for part-time employment. Provision would be necessary for organizing and administering the part-time work on public projects planned and carried on to help unemployed youth acquire desirable work habits and experience and earn a small weekly wage, pending placement in full-time regular employment How large a staff would be required for this task in a given community cannot be determined in advance, though some light on the subject might be obtained from the inadequate program of this type now conducted by the N Y A Of course, what needs to be done will depend on employment conditions; and what can be done, on the amount of money made available from federal and other funds for this work. However, the same staff could properly concern itself, also, with aiding employed youth to form the habit of participating wisely in community-service activities without pay.

Provision for recreation. Finally, the recreational needs of its youth, using the term "recreational" in a broad sense, seem to demand that the institute set up a department in this field While this department would probably devote its major interest to unemployed youth, much more needs to be done than is generally realized to provide adequate recreational facilities for employed youth and to help them develop wholesome use of that portion of their leisure time devoted to recreation

Of course, close coordination of the work of these various departments, under the leadership of the principal, would be

necessary; also coordination of the work of the institute with that of other local agencies interested in the welfare of youth. All the departments taken together are for the purpose of helping youth get off to a good start when they leave high school, a start that gives promise of continued individual development as these youth advance in life

Organization for a Small School System

When one undertakes to set up a program of vocational guidance and adjustment in a school system that serves a town of only a few thousand population, it is quite apparent that an expensive organization with several full-time workers is out of the question It may be impossible even to employ a full-time person to direct the program. Yet the youth of this community, both in school and out, are in need of the services that have been discussed just as truly as are similar youth in large cities where a strong staff can be maintained. If these needs of youth in small cities and towns are to be met, some kind of organized provision for the purpose is just as necessary as in larger communities

The solution to this difficult problem seems to lie in assigning each of the services that have been considered to a member of the school staff on a part-time basis or, in some cases, as an extra-curricular responsibility. It may be necessary to assign two or more of the services to the same person The high school principal may serve also as director and head counselor. The important features are that the best possible provision be made for each service and that the best available member of the staff be made responsible for that service The general functional plan of organization, then, remains the same regardless of the size of the school system.

Organization for Rural Communities[1]

It must be granted that rural youth are as much in need of vocational guidance and adjustment as are those in cities and towns. It does not follow that the boy who happens to live in the country is best fitted for dairy farming because his father is a dairy farmer, any more than that a boy who lives in the city

[1] For a more complete discussion of vocational guidance for rural youth see George E Myers, *The Problem of Vocational Guidance*, Chap XII, New York: The Macmillan Company, 1929

should become a bricklayer because his father is a bricklayer. The farmer's boy is more likely to follow his father's occupation because the family capital is tied up in land and barns and cows. But the chances are just as great that he is better fitted for some other type of farming or for some industrial, business, or professional occupation as that the bricklayer's son is better suited for some other occupation than bricklaying. A comprehensive program of vocational guidance for rural youth should result in keeping on the farm those who are suited to farm life and should distribute these among the different kinds of farming according to their aptitudes and interests It should result in attracting to city occupations only those who are better suited to these occupations than to farming.

In those rural areas that are served by consolidated schools, the same type of organization for vocational guidance and adjustment that has just been discussed for small cities and towns, seems to be both practicable and desirable In fact, some consolidated schools have better facilities and more favorable general conditions for a guidance program than have many small school systems in incorporated towns.

The most difficult problem of organization for the kind of guidance program under consideration arises in connection with one-teacher schools in the open country. According to reports of the U S Office of Education, there are still several millions of children attending such schools. To be sure, some of these children later attend high schools in neighboring cities and towns and may obtain vocational guidance there, but many, partly because they have had little if any vocational guidance, never attend any other school than that of their childhood.

Probably the most effective way to meet this situation is for the county superintendent of public instruction to be provided with an assistant superintendent whose chief responsibility is vocational guidance and adjustment. This assistant would serve as director, head counselor, and placement officer for the entire county He would be expected to supervise the guidance work done by teachers, to provide needed occupational information material for the schools, to see that a suitable pupil-record system is set up, to counsel individual pupils referred to him by teachers in accordance with a well-considered plan, and to render as much placement and follow-up service as possible to those who

are out of school. As far as practicable he would use carefully selected teachers of the county to assist him in the performance of these and other duties.

To be sure, this is a much simpler matter in a county whose schools are organized on the county unit plan with a single board of education for the entire county, and the county superintendent appointed by this board, than it is in a county with a separate board of education for every one-teacher school and the county superintendent elected by popular vote. Yet the latter conditions still exist in many states. It seems unlikely that any plan for vocational guidance will prove very effective under these conditions In fact, if vocational guidance—and one may say if education itself—is to serve the needs of rural youth the county unit plan and many more consolidated schools than there are at present are practically necessary

Cooperation among School Systems

No school system's plan of organization for vocational guidance and adjustment can be considered adequate that concerns itself only with the youth of its own schools Provision must be made also for the program to serve those beyond compulsory school age who come into the community but do not enter its schools. Young people who come into a strange city, whether from another city or from the country, often are in greater need of guidance and particularly of placement and follow-up services than are local youth. Unfortunately, however, little consideration usually is given these young people by the school placement office, except to resent their coming into competition with graduates of the local schools.

What seems to be needed is an arrangement for transferring out-of-school youth from one community to another as in-school youth have long been transferred If a high school boy moves from one city to another he is given a transfer to a high school in the city which becomes his new home. After the acceptance of the transfer he receives the same consideration as those who came into the high school from the elementary schools of the city. The adjustment institute already described provides the necessary machinery for the same procedure in dealing with out-of-school youth. Part of its business is to follow its own youth and help them establish themselves in other communities An

equally important part should be to receive youth from other communities and serve them as if they were its own. A system of transfers would care for this situation.

Summary

The effectiveness of a vocational guidance program depends not only upon the fact that provision is made for all of the eight services considered in earlier chapters but also on how the program as a whole is set up and administered In considering a desirable plan of organization and administration for such a program, the relationships of the program to the rest of the school system and its relationships within the secondary school must both be taken into account

Two closely related functions of a school system are teaching and pupil personnel work. The former is concerned *directly* with the educative process—development of the pupil by means of his school environment The latter is concerned *indirectly* with the same thing, its direct concern being to bring the pupil into the school environment under the most favorable conditions for his development. In a large school system organization of a pupil personnel department with an assistant superintendent in charge is a logical step. Vocational guidance is primarily a pupil personnel function. It may well be assigned to a vocational guidance bureau set up within the pupil personnel department, coordinate with bureaus which deal with attendance, health, research, and the like, with a director in charge.

Five divisions of the bureau seem desirable. vocational information, self-inventory; records and counseling, preemployment vocational preparation, and placement and follow-up divisions Each division would be expected to supervise its appropriate activities throughout the school system. In a smaller school system the same general setup is desirable with a larger part of the program assigned to one individual or with the work divided among staff members who have other duties or with both of these arrangements.

The vocational guidance program within a secondary school is a *school enterprise* in which all members of the staff participate. The principal, as key man, cooperates with the staff of the bureau in planning the program for his school. He arranges for needed supervision by staff members from the bureau, provides favorable

conditions for carrying on the work, helps members of his staff to see and perform their particular duties in the program, checks on how effectively these duties are performed, etc.

The head counselor is the principal's agent in supervising the guidance program within the school. He counsels pupils and arranges for counseling by others. He has direct responsibility for seeing that adequate pupil records are available for counseling interviews. He helps pupils seeking work to make proper use of the placement services of the school system, and performs many other similar duties.

Home-room teachers report to the head counselor's office significant data concerning individual pupils, themselves do certain types of counseling, cultivate a favorable attitude toward the vocational guidance program, and cooperate with the head counselor in other ways.

Subject teachers help pupils to discover their abilities and limitations, observe and report to the head counselor special aptitudes, interests, and personality traits of particular pupils, assist their pupils to obtain information concerning opportunities and requirements of occupations closely related to the subjects which they teach, etc.

The school librarian sees that the library functions as effectively as possible in providing needed information concerning occupations and reports to the head counselor on special interests shown by pupils in their reading Other members of the school staff are brought into the program appropriately by the principal and the head counselor

The Adjustment Institute calls for a special type of organization either responsible to or coordinate with the bureau. The director or principal would function for this institution with reference to vocational guidance much as the principal functions for his high school. A head counselor would have the assistance on a part-time basis of all the counselors in the senior high schools. Other assistance might be needed. The entire placement staff of the school system might well be transferred to the Adjustment Institute. A special staff for organizing and administering the part-time employment program for unemployed youth would be necessary. A special staff would be required for the educational program provided and another for the recreational and health program. Careful planning for the organization and adminis-

tration of the Adjustment Institute will be necessary if it is to measure up to its possibilities of service to youth.

Small school systems and rural schools present special problems in organizing and administering vocational guidance. Essential things in meeting these special problems are to see that all the services are provided, that some individual is responsible for each, and that the services are coordinated. Consolidated rural schools make easier the organization of an effective program of vocational guidance in rural areas.

Some plan of cooperation among school systems is necessary if the counseling, placement, and follow-up needs of out-of-school youth who move from one school district to another are to be served

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